



NSAI
Standards

Irish Standard
I.S. EN 61029-2-8:2010

Safety of transportable motor-operated electric tools -- Part 2-8: Particular requirements for single spindle vertical moulders (IEC 61029-2-8:1995 (MOD) + A1:1999 (EQV) + A2:2001 (EQV))

I.S. EN 61029-2-8:2010

Incorporating amendments/corrigenda issued since publication:

<i>This document replaces:</i> EN 61029-2-8:2003	<i>This document is based on:</i> EN 61029-2-8:2010 EN 61029-2-8:2003	<i>Published:</i> 26 February, 2010 30 October, 2003
This document was published under the authority of the NSAI and comes into effect on: 10 March, 2010		ICS number: 25.080.20; 35.140.20
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie
Údarás um Chaighdeáin Náisiúnta na hÉireann		

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61029-2-8

February 2010

ICS 25.080.20; 25.140.20

Supersedes EN 61029-2-8:2003

English version

**Safety of transportable motor-operated electric tools -
Part 2-8: Particular requirements for single spindle vertical moulders
(IEC 61029-2-8:1995, modified + A1:1999 + A2:2001)**

Sécurité des machines-outils électriques
semi-fixes -
Partie 2-8: Règles particulières
pour les toupies monobroches verticales
(CEI 61029-2-8:1995, modifiée + A1:1999
+ A2:2001)

Sicherheit transportabler motorbetriebener
Elektrowerkzeuge -
Teil 2-8: Besondere Anforderungen
an einspindelige senkrechte
Tischfräsmaschinen
(IEC 61029-2-8:1995, modifiziert +
A1:1999 + A2:2001)

This European Standard was approved by CENELEC on 2009-11-17. 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, Croatia, 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: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of the International Standard IEC 61029-2-8:1995 and its amendments 1:1999 and 2:2001, 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 116, former TC 61F, Safety of hand-held motor-operated electric tools, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61029-2-8 on 2003-06-01.

A draft amendment (prAA), 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 61029-2-8 on 2009-11-17.

This European Standard supersedes EN 61029-2-8:2003.

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

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) 2010-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-06-01

In this document the common modifications to the International Standard are indicated by a vertical line in the left margin of the text.

This standard is divided into two parts:

Part 1 General requirements, which are common to most transportable motor, operated tools (for the purpose of this European Standard referred to simply as tools) which could come within the scope of this European Standard.

Part 2 Requirements for particular types of tool 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 requirements of EC Directive 2006/42/EC. See Annex ZZ.

Compliance with the relevant clauses of Part 1 together with this Part 2 provides one means of conforming with the specified essential health and safety requirements of the Directive.

The requirements defined in EN 1050 are also dealt with in this standard.

For noise and vibration this standard covers the requirements for their measurement, the provision of information arising from these measurements and the provision of information about the personal protective equipment required. Specific requirements for the reduction of the risk arising from noise and vibration through the design of the tool are not given as this reflects the current state of the art.

Warning: Other requirements arising from other EC Directives can be applicable to the products falling within the scope of this standard.

This Part 2-8 is to be used in conjunction with EN 61029-1:2009. This Part 2-8 supplements or modifies the corresponding clauses of EN 61029-1, so as to convert it into the European Standard: "Safety requirements for transportable vertical spindle moulders".

Where a particular subclause of Part 1 is not mentioned in this Part 2-8, that subclause applies as far as is reasonable. Where this Part 2-1 states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

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

Clauses, subclauses, notes, tables and figures which are additional to those in IEC 61029-2-8 are prefixed "Z".

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.

Contents

1	Scope	6
2	Definitions	6
3	General requirements	7
4	General notes on tests	7
5	Rating.....	7
6	Classification	7
7	Marking	7
8	Protection against electric shock	10
9	Starting.....	10
10	Input and current	10
11	Heating.....	10
12	Leakage current.....	10
13	Environmental requirements	10
14	Protection against ingress of foreign bodies and moisture resistance.....	12
15	Insulation resistance and electric strength.....	12
16	Endurance	12
17	Abnormal operation.....	12
18	Stability and mechanical hazards	12
19	Mechanical strength.....	20
20	Construction	22
21	Internal wiring	23
22	Components	23
23	Supply connection and external flexible cables and cords.....	23
24	Terminals for external conductor	23
25	Provision for earthing.....	23
26	Screws and connections	23
27	Creepage distances, clearances and distances through insulation	23
28	Resistance to heat, fire and tracking	23
29	Resistance to rusting	23
30	Radiation	23
	Annex A (normative) Normative references.....	38
	Annex ZZ (informative) Coverage of Essential Requirements of Directive 2006/42/EC	39
Figures		
	Figure Z101 – Example of single spindle vertical moulder	24
	Figure Z102 – Example of straight work.....	25
	Figure Z103 – Example of stopped straight work	25
	Figure Z104 – Example of curved work.....	26
	Figure Z105 – Examples of tenoning	26
	Figure Z106 – Example of speed / cutting tool diameter diagram	27

Figure Z107 – Orientation of tool and operator.....	28
Figure Z108 – Tool holder spindles and spindle rings.....	29
Figure Z109 – Run out test of spindle rings.....	30
Figure Z110 – Table dimensions.....	30
Figure Z111 – Table rings	31
Figure Z112 – Example of curved work workpiece guiding and cutter block guarding systems.....	31
Figure Z113 – Test probe	32
Figure Z114 – Straight work - Example of using pressure devices.....	32
Figure Z115 – Example of guard and slide for tenoning operation	33
Figure Z116 – Definition of fence pressure pad deflection measuring point and directions of application of the test forces (horizontal view).....	34
Figure Z117 – Definition of fence pressure pad deflection measuring point and directions of application of the test forces (vertical view).....	34
Figure Z118 – Application of fence test force "F" and measurement of displacement "f" (vertical view).....	35
Figure Z119 – Definition of table pressure pad deflection measuring point and directions of application of test forces (horizontal view).....	35
Figure Z120 – Definition of table pressure pad deflection measuring point and directions of application of test forces (vertical view)	35
Figure Z121 – Definition of the adjustable guard deflection measuring points and directions of application of test forces.....	36
Figure Z122 – Definition of guiding deflection measuring points and directions of application of test forces.....	37

Tables

Table Z101 – Conditions for dust measurements	11
Table Z102 – Noise test conditions for single vertical spindle moulders.....	11
Table Z103 – Tool holder spindle and cutting tool dimensions.....	13
Table Z104 – Table dimensions (mm).....	15
Table Z105 – Table rings.....	15
Table Z106 – Fences and table pressure pad displacement.....	21
Table Z107 – Adjustable guard deflection	21
Table Z108 – Guiding steady deflection	22

1 Scope

This clause of part 1 is applicable except as follows:

1.1 Addition:

This European Standard applies to transportable single spindle vertical moulders, with a maximum cutter block diameter of 200 mm maximum, designed to cut wood and analogue materials also covered with plastic laminate or edgings by hand-feed operation.

Single spindle vertical moulders other than transportable are covered by EN 848-1:1998.

2 Definitions

This clause of part 1 is applicable except as follows:

2.21 Replacement:

2.21

normal load

the load to obtain rated input

2.101

transportable single spindle vertical moulder

a hand fed vertical spindle moulder used on a table or similar support which is intended to carry out work in a stationary position, capable of being lifted by hand by one person. It has a single spindle (fixed or removable) the position of which is fixed during machining and a horizontal table. The motor is integral with the machine. The machine may have any of the following additional features:

- a) the facility for the spindle to be raised and lowered through the table;
- b) the facility for fitting an additional manually operated sliding table;
- c) the facility to tilt the spindle.

(See Figure Z101)

2.102

cutter block

rotating assembly consisting of the tool holder and the cutting tool

2.103

tool holder

single piece spindle or removable spindle to which the cutting tool is fixed

2.104

removable spindle

spindle capable of being changed without removing the bearings

2.Z101

straight work

the shaping of a workpiece with one face in contact with the table and a second with the fence, and where the work starts at one end of the workpiece and continuous through to the other end (see Figure Z102)

2.Z102

stopped straight work

the machining of only a part of the workpiece length

(See Figure Z103)

CONTENTS

	Page
FOREWORD	5
Clause	
1 Scope	9
2 Definitions	9
3 General requirement	9
4 General notes on tests	11
5 Rating	11
6 Classification	11
7 Marking	11
8 Protection against electric shock	13
9 Starting	13
10 Input and current	13
11 Heating	13
12 Leakage current	13
13 Radio and television interference suppression	13
14 Protection against ingress of foreign bodies and moisture resistance	13
15 Insulation resistance and electric strength	13
16 Endurance	13
17 Abnormal operation	13
18 Stability and mechanical hazards	15
19 Mechanical strength	27
20 Construction	27
21 Internal wiring	29
22 Components	31
23 Supply connection and external flexible cables and cords	31
24 Terminals for external conductors	31
25 Provision for earthing	31
26 Screws and connections	31
27 Creepage distances, clearances and distance through insulation	31
28 Resistance to heat, fire and tracking	31
29 Resistance to rusting	31
30 Radiation	31
Figures	33
Annexes	41

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

SÉCURITÉ DES MACHINES-OUTILS ÉLECTRIQUES SEMI-FIXES

Partie 2: Règles particulières pour
les toupies monobroches verticales

AVANT-PROPOS

- 1) La CEI (Commission Electrotechnique Internationale) est une organisation mondiale de normalisation composée de l'ensemble des comités électrotechniques nationaux (Comités nationaux de la CEI). La CEI a pour objet de favoriser la coopération internationale pour toutes les questions de normalisation dans les domaines de l'électricité et de l'électronique. A cet effet, la CEI, entre autres activités, publie des Normes internationales. Leur élaboration est confiée à des comités d'études, aux travaux desquels tout Comité national intéressé par le sujet traité peut participer. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec la CEI, participent également aux travaux. La CEI collabore étroitement avec l'Organisation Internationale de Normalisation (ISO), selon des conditions fixées par accord entre les deux organisations.
- 2) Les décisions ou accords officiels de la CEI en ce qui concerne les questions techniques, préparés par les comités d'études où sont représentés tous les Comités nationaux s'intéressant à ces questions, expriment dans la plus grande mesure possible un accord international sur les sujets examinés.
- 3) Ces décisions constituent des recommandations internationales publiées sous forme de normes, de rapports techniques ou de guides et agréées comme telles par les Comités nationaux.
- 4) Dans le but d'encourager l'unification internationale, les Comités nationaux de la CEI s'engagent à appliquer de façon transparente, dans toute la mesure possible, les Normes internationales de la CEI dans leurs normes nationales et régionales. Toute divergence entre la norme de la CEI et la norme nationale ou régionale correspondante doit être indiquée en termes clairs dans cette dernière.

La présente partie de la Norme internationale CEI 1029 a été établie par le sous-comité 61F: Sécurité des outils électroportatifs à moteur, du comité d'études 61 de la CEI: Sécurité des appareils électrodomestiques et analogues.

Le texte de cette norme est issu des documents suivants:

DIS	Rapport de vote
61F(BC)103	61F/97/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette norme.

La présente partie 2 doit être utilisée conjointement avec la première édition de la CEI 1029-1.

La présente partie 2 complète ou modifie les articles correspondants de la CEI 1029-1 de façon à la transformer en norme CEI: Règles de sécurité pour les toupies monobroches verticales semi-fixes.

Lorsqu'un paragraphe particulier de la première partie n'est pas mentionné dans cette partie 2, ce paragraphe s'applique pour autant qu'il est raisonnable. Lorsque la présente norme spécifie «addition», «modification» ou «remplacement», le texte correspondant de la première partie doit être adapté en conséquence.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY OF TRANSPORTABLE MOTOR-OPERATED ELECTRIC TOOLS**Part 2: Particular requirements for
single spindle vertical moulders**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The 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 the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

This part of International Standard IEC 1029 has been prepared by sub-committee 61F: Safety of hand-held motor-operated electric tools, of IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this standard is based on the following documents:

DIS	Report on voting
61F(CO)103	61F/97/RVD

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

This part 2 is to be used in conjunction with the first edition of IEC 1029-1.

This part 2 supplements or modifies the corresponding clauses in IEC 1029-1, so as to convert it into the IEC Standard: Safety requirements for transportable single spindle vertical moulders.

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

NOTES

1 Les caractères d'imprimerie suivants sont employés:

- prescriptions: caractères romains;
- *modalités d'essai: caractères italiques;*
- notes: petits caractères romains;

Les termes définis à l'article 2 figurent en **caractères gras**.

2 Les paragraphes, notes et figures complémentaires à ceux de la première partie, sont numérotés à partir de 101.

NOTES

- 1 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 2 are printed in **bold typeface**.

- 2 Subclauses, notes and figures which are additional to those in part 1 are numbered starting from 101.

SÉCURITÉ DES MACHINES-OUTILS ÉLECTRIQUES SEMI-FIXES

Partie 2: Règles particulières pour les toupies monobroches verticales

1 Domaine d'application

L'article de la première partie est applicable avec l'exception suivante:

1.1 *Modification:*

Remplacer le premier alinéa par:

La présente Norme internationale s'applique aux toupies monobroches verticales semi-fixes munies d'un outil coupant d'un diamètre maximal de 180 mm, comme défini au 2.101 (voir également une illustration à la figure 101).

2 Définitions

L'article de la première partie est applicable avec les exceptions suivantes:

2.21 *Replacement*

charge normale: Charge obtenue lorsque l'outil fonctionne de manière continue, lorsque le couple de torsion appliqué à l'arbre est tel que la puissance, en watts, soit égale à la puissance nominale.

2.101 toupie monobroche verticale: Outil destiné à façonner ou à tenonner le bois ou des matériaux similaires au moyen d'un outil coupant à rotation verticale faisant saillie par un orifice pratiqué dans une table, qui supporte et positionne la pièce de travail qui est déplacée à la main vers l'outil coupant.

Le moteur et l'ensemble de conduite de l'outil coupant sont placés au-dessous du niveau de la table.

Il est admis que l'outil coupant ou la table soit ajustable.

2.102 outil coupant: Ensemble rotatif composé de l'arbre porte-outil et de l'outil de coupe.

2.103 arbre porte-outil: Arbre monobloc, relié à l'axe du moteur et utilisé pour fixer l'outil de coupe ou l'arbre mobile.

2.104 arbre mobile: Ensemble composé d'un arbre sur lequel est monté l'outil de coupe ainsi que des écrous, des entretoises et un axe de palier. Il joue le rôle d'une extension de l'outil de coupe.

3 Prescription générale

L'article de la première partie est applicable.

SAFETY OF TRANSPORTABLE MOTOR-OPERATED ELECTRIC TOOLS

Part 2: Particular requirements for single spindle vertical moulders

1 Scope

This clause of part 1 is applicable except as follows:

1.1 *Modification:*

Replace the first paragraph by:

This International Standard applies to transportable single spindle vertical moulders with a maximum cutter block diameter of 180 mm, as defined in 2.101 (see also drawing on figure 101).

2 Definitions

This clause of part 1 is applicable except as follows:

2.21 *Replacement:*

normal load: The load obtained when the tool is operated continuously, the torque applied to the spindle such that the input, in watts, is equal to the rated input.

2.101 single spindle vertical moulder: Tool designed to shape or tenon wood or similar materials by means of a vertically rotating cutter block that projects through a hole in a table, which supports and positions the workpiece which is fed by hand towards the cutter block.

The motor and drive assembly for the cutter block are located below the level of the table.

The cutter block or the table may be adjustable.

2.102 cutter block: Rotating assembly consisting of the tool holder and the cutting tool.

2.103 tool holder: Single piece spindle, connected to the motor spindle, to fix the cutting tool or the movable spindle.

2.104 movable spindle: Assembly consisting of a spindle on which is fitted the cutting tool together with nuts, spacers, bearing spindle. It performs as a cutting tool extension.

3 General requirement

This clause of part 1 is applicable.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-