



NSAI
Standards

Irish Standard
I.S. EN 847-1:2013

Tools for woodworking - Safety requirements - Part 1: Milling tools, circular saw blades

I.S. EN 847-1:2013

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:
EN 847-1:2005+A1:2007

This document is based on:
EN 847-1:2013

Published:
18 October, 2013

This document was published under the authority of the NSAI and comes into effect on:
18 October, 2013

ICS number:

79.120.10

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

English Version

Tools for woodworking - Safety requirements - Part 1: Milling tools, circular saw blades

Outils pour le travail du bois - Prescriptions de sécurité -
Partie 1: Outils de fraisage, lames de scies circulaires

Maschinen-Werkzeuge für Holzbearbeitung -
Sicherheitstechnische Anforderungen - Teil 1: Fräs- und
Hobelwerkzeuge, Kreissägeblätter

This European Standard was approved by CEN on 10 August 2013.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions, symbols and abbreviations	6
3.1 Terms and definitions	6
3.2 Symbols and abbreviations	12
4 List of significant hazards	14
5 Design requirements	15
5.1 General requirements for milling tools and circular saw blades.....	15
5.1.1 General.....	15
5.1.2 Safety requirements and/or measures	15
5.1.3 Separable fixing	16
5.1.4 Overspeed type test for complex tools	17
5.1.5 Cutting blade thickness and cutting blade projection.....	18
5.1.6 Dimensions and tolerances	19
5.1.7 Handling of detachable tools with $m > 15$ kg.....	20
5.2 Specific requirements for milling tools	20
5.2.1 Tools for hand fed machines.....	20
5.2.2 Prevention of relative rotation within a tool combination	26
5.2.3 Balance of milling tools	26
6 Tool identification.....	28
6.1 Marking of milling tools for integrated feed other than shank mounted tools or integrated tools	28
6.2 Marking of milling tools for machines with hand feed other than shank mounted tools or integrated tools	28
6.3 Marking of integrated tools.....	28
6.4 Marking of shank mounted tools	29
6.5 Marking of circular saw blades	29
6.6 Marking of cutting parts and deflectors	30
7 Information for use	30
7.1 General.....	30
7.2 Safe working practice.....	30
7.2.1 Maximum speed	30
7.2.2 Circular saw blades	30
7.2.3 One piece tools	30
7.2.4 Cleaning.....	30
7.2.5 Mounting and fastening of tools and tool parts	31
7.3 Maintenance of tools	31
7.4 Handling.....	32
Annex A (informative) Maintenance and modification of milling tools and related components.....	33
A.1 General.....	33
A.2 Minimum dimensions	33
A.3 Retipping, exchange of tips on composite tools and circular saw blades.....	33
A.4 Milling tools marked with MAN.....	33
A.5 Balance of milling tools	33
A.6 Marking	33
A.7 Information	33

Annex B (normative) Palmqvist Toughness Test34
Bibliography35

Foreword

This document (EN 847-1:2013) has been prepared by Technical Committee CEN/TC 142 "Woodworking machines - Safety", the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2014, and conflicting national standards shall be withdrawn at the latest by April 2014.

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

This document supersedes EN 847-1:2005+A1:2007.

The following table contains a list of modifications from the previous edition.

EN 847-1:2005+A1:2007	EN 847-1:2013	Reason
3 Terms	3 Terms and definitions	editorial (ed)
4 Symbols and abbreviations	3.2 Symbols and abbreviations	ed
5 List of significant hazards	4 List of significant hazards	ed
6 Design requirements	5 Design requirements	ed
6.2.3.2.2 Balance quality requirements	5.2.3.2 Balance quality requirements	ed
Table 4 (5): 3 columns	Table 5: 4 columns	Precision of requirements (te)
	New Table 6: Quantities and units	ed
7 Tool identification	6 Tool identification	ed
8 Information for use	7 Information for use	ed
Annex A: Safe work practice	7.2 Safe working practice	ed
Annex B: Maintenance and modification of milling tools and related components	Annex A: Maintenance and modification of milling tools and related components	ed
Annex C: Palmqvist toughness test	Annex B: Palmqvist toughness test	ed

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The extent to which hazards are covered is indicated in the Scope of this document.

The requirements of this document concern designers, manufacturers, suppliers and importers of tools for woodworking.

This document also includes information which the manufacturer will provide to the user.

1 Scope

This European Standard specifies all hazards arising from the use of tools for woodworking machines, and describes the methods for the elimination or reduction of these hazards by tool design and by the provision of information. This European Standard deals with milling tools (bore mounted, shank mounted), integrated tools and circular saw blades.

This European Standard does not cover any hazard related to the strength of shank of shank mounted milling tools. The hazards are listed in Clause 4. This European Standard does not apply to boring bits, eccentric single router cutters, cutters with cutting circle less than 16 mm and to tools used in rotary knife lathes and copying lathes where the hazard of ejection and contact with the tool is always prevented by a system of fixed guards and/or movable guards interlocked with guard-locking and/or self-closing guards.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 847-2, *Tools for woodworking — Safety requirements — Part 2: Requirements for the shank of shank mounted milling*

EN 23878, *Hardmetals — Vickers hardness test (ISO 3878)*

ISO 286-2, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 2: Tables of standard tolerance classes and limit deviations for holes and shafts*

ISO 1940-1, *Mechanical vibration — Balance quality requirements for rotors in a constant (rigid) state — Part 1: Specification and verification of balance tolerances*

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

milling tools

rotating cutting tool (e.g. milling cutter, planing cutter, thicknessing cutter) normally having its main feed direction perpendicular to the rotation axis, for working various surfaces on wood and similar materials through chip removal

Note 1 to entry: The cutting edge of the cutting part may be

- parallel to the axis of rotation,
- square to the axis of rotation, or
- a profile which is a combination of the two.

The tool may be

- a one piece tool,
- a composite tool,

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](#)
-