AS/NZS 62841.2.23:2025
IEC 62841-2-23:2024

Australian/New Zealand Standard™

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery — Safety

Part 2.23: Particular requirements for hand-held die grinders and small rotary tools

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This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers and Power Supplies. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 13 May 2025 and by the New Zealand Standards Approval Board on 12 June 2025.

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The following are represented on Committee EL-002:

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Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery — Safety

Part 2.23: Particular requirements for hand-held die grinders and small rotary tools

Originated as AS/NZS 60745.2.23:2013.
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NOTES

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PREFACE

This standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002, *Safety of household and similar electrical appliances and small power transformers* to supersede AS/NZS 60745.2.23:2013 three years from the date of publication of this standard. During this period, AS/NZS 60745.2.23:2013 will also remain current. Regulatory authorities that reference this standard in regulation may apply these requirements at a different time. Users of this standard should consult these authorities to confirm their requirements.

The objective of this standard is to provide manufacturers, designers, regulatory authorities, testing laboratories, and similar organisations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand.

The text of IEC 62841-2-23, Ed. 1.0, prepared by IEC Technical Committee TC 116, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (double public comment and committee vote) for adoption of the IEC standard as a Standards Australia/Standards New Zealand joint standard.

This standard is an adoption with national modifications of the first edition of IEC 62841-2-23, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 2-23: Particular requirements for hand-held die grinders and small rotary tools.* It has been varied as indicated to take account of Australian and New Zealand conditions.

This part of AS/NZS 62841 has to be used in conjunction with the latest edition of AS/NZS 62841.1, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements* and its amendment. It was established on the basis of AS/NZS 62841.1:2015.

This part of AS/NZS 62841 supplements or modifies the corresponding clauses of AS/NZS 62841.1 so as to convert it into the Australian/New Zealand Standard: Safety requirements for hand-held die grinders and small rotary tools.

When a particular subclause of AS/NZS 62841.1 is not mentioned in this part of AS/NZS 62841, that subclause applies as far as is reasonable. When this standard states ‘addition’, ‘modification’, or ‘replacement’, the relevant text of AS/NZS 62841.1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

– subclauses, tables and figures that are numbered starting from 101 are additional to those in AS/NZS 62841.1;

– unless notes are in a new subclause or involve notes in AS/NZS 62841.1, they are numbered starting from 101, including those in a replaced clause or subclause;

– additional annexes are lettered AA, BB, and so on;

– subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letters AZ.

NOTE 2 The following print types are used:

– requirements: in roman type;

– *test specifications: in italic type;*

– notes: in small roman type.

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Words in **bold** in the text are defined in Clause 3.

p NOTE 3 In this document, p is used in the margin to indicate instructions for preparing a consolidated version.

The essential safety requirements in AS/NZS 3820[1] that could be applicable to requirements for hand-held die grinders and small rotary tools are covered by this standard.

The national variations to IEC 62841-2-23, Ed. 1.0 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

The text of the international standard IEC 62841-2-23, Ed. 1.0 was approved as a joint Australian/New Zealand standard, noting the effect of national variations in AS/NZS 62841.1:2015.

AUSTRALIAN NATIONAL VARIATIONS

There are no national variations to this part of AS/NZS 62841 other than those listed in the national variations in AS/NZS 62841.1:2015.

NEW ZEALAND NATIONAL VARIATIONS

There are no national variations to this part of AS/NZS 62841 other than those listed in the national variations in AS/NZS 62841.1:2015.

1 AS/NZS 3820, *Essential safety requirements for electrical equipment.*

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ANNEX ANZ

(Normative)

Normative references to international publications with their corresponding joint Australia/New Zealand publications

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

NOTE When an international publication has been modified by national variations, the relevant joint Australia/New Zealand publication applies if the national variations are needed to ensure the safety of the appliance for Australia/New Zealand conditions. These international publications are indicated by (MOD). If an international publication is not so indicated, then either it or the listed Australia/New Zealand publication may be used. Where there is no equivalent international publication to a listed Australian/New Zealand publication, then the Australian/New Zealand publication applies.

Publication	Year	Title	AS/NZS	Year
IEC 62841-1 (MOD)	2014	*Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements*	62841.1	2015

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-23: Particular requirements for hand-held die grinders and small rotary tools

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.

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6) All users should ensure that they have the latest edition of this publication.

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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 62841-2-23 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
116/759/FDIS	116/797/RVD

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

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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 die grinders and small rotary 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.

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may 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.

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

Part 2-23: Particular requirements for hand-held die grinders and small rotary tools

1 Scope

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

Addition:

This document applies to hand-held **die grinders** and to small **rotary tools** for mounted **accessories** not exceeding 55 mm in diameter and for mounted sanding **accessories** not exceeding 80 mm in diameter such as

– threaded **cones and plugs** that are threaded on a mandrel with an unrelieved shoulder flange,
– mandrel **mounted wheels**, and
– rotary files

with a **rated speed** not exceeding a peripheral speed of the accessory of 80 m/s at **rated capacity**.

This document does not apply to straight and vertical grinders utilizing flanges for driving an abrasive accessory.

NOTE 101 Straight and vertical grinders are covered by IEC 62841-2-3.

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
cones and plugs (pl)
organic or inorganic bonded abrasives of various shapes and sizes with a threaded insert

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