

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Amendment No. 1
to
AS/NZS 60745.2.3:2011
Hand-held Motor-operated Electric Tools – Safety –
Part 2.3: Particular requirements for grinders, polishers and disk-type sanders**

REVISED TEXT

The 2011 edition of AS/NZS 60745.2.3 is amended as follows; the amendments should be inserted in the appropriate places.

SUMMARY: This amendment applies to Foreword and Clauses 1, 2, 3, 8, 19, 20, 21, 24, Annex ZZ and Bibliography.

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This amendment takes effect two years from the date of publication.

FOREWORD

Add the following as a new third paragraph;

This Standard incorporates Amendment No. 1 (June 2013). The changes required by the amendments are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected. Where an application date other than immediate is applicable to an amendment the date of application (DOA) and the date of withdrawal (DOW) if relevant, is indicated by the marginal bar against the part affected.

Replace the existing third paragraph by the following:

This Standard is an adoption with national modifications and contains the full text of the second edition of IEC 60745-2-3, *Hand-held motor-operated electric tools – Safety – Part 2-3: Particular requirements for grinders, polishers and disk-type sanders* and its amendment 1 (2010) and its corrigendum 1 (2011) and its amendment 2 (2011) and has been varied as indicated to take account of Australian and New Zealand conditions.

In the existing 5th, 9th and 10th paragraphs replace “2.1” by “2.2”

1 Scope

Add the following new paragraph to the existing text:

This standard does not apply to die grinders utilizing collets or chucks for mounting threaded cones and mandrel mounted wheels which are covered by IEC 60745-2-23.

2 Normative references

Delete the fourth normative reference ANSI B7.1.

Add the following new normative reference:

ISBN 978-1-74342-488-9

ANSI B74.2 2003 *Specifications for Shapes and Sizes of Grinding Wheels, and for Shapes, Sizes and Identification of Mounted Wheels*

3 Terms and definitions

Replace the existing definitions 3.104.2, 3.104.3 and 3.105 by the following:

3.104.2

straight grinder

tool with the rotating spindle in-line with the motor shaft, equipped with an abrasive wheel intended for peripheral grinding, but not equipped with a collet or chuck

3.104.3

vertical grinder

tool with the rotating spindle in-line with the motor shaft, intended for peripheral and lateral grinding

3.105

threaded wheels

organic or inorganic bonded abrasives of various types provided with a threaded insert for direct mounting to the grinder spindle

Replace the existing definition 3.110 by the following:

3.110

wheel types

wheels for different applications in accordance with ISO 603-12, ISO 603-14, ISO 603-16 or ANSI B 74.2

8 Marking and instructions

8.12.1.101 Safety instructions for all operations

Add the following note to item a):

NOTE List only those operations that are recommended.

Replace the existing item f) by the following:

- f) **Threaded mounting of accessories must match the grinder spindle thread. For accessories mounted by flanges, the arbour hole of the accessory must fit the locating diameter of the flange. Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.**

8.12.1.103 Additional safety instructions for grinding and cutting-off operations

Add the following new safety warning b) after item a) and renumber the subsequent safety warnings:

- b) **The grinding surface of centre depressed wheels must be mounted below the plane of the guard lip. An improperly mounted wheel that projects through the plane of the guard lip cannot be adequately protected.**

8.12.2 b)

Replace the existing items 101) to 104), 106) and 107) by the following:

- 101) Instruction on the proper use of blotters, when they are provided with the bonded abrasive product
- 102) Information about the specific flanges to be used with all wheel types in accordance with 8.12.2 a) 101). Instruction on the mounting of accessories and the use of the

correct flanges. For reversible flanges, instruction on the correct method of fitting the flanges

- 103) For all wheels specified in accordance with 8.12.2 a) 101), instruction on their proper use. For grinding and cut-off wheels, instruction on their use for side grinding and peripheral grinding applications, and for Type 27 and 28 wheels, the recommended angle to the work surface
- 104) For all operations listed in accordance with 8.12.1.101 a), where the use of a guard is required, instruction for the proper type of guard to be used
- 106) Instruction on proper support for the workpiece
- 107) In case of cup-wheels, cones or plugs with a threaded hole intended to be mounted on the machine spindle, critical dimensions and other data shall be given in order to prevent the spindle end from touching the bottom of the mounting hole of the abrasive product

19 Mechanical hazards

19.101

Replace the existing first paragraph, dashed text not included, by the following:

Grinders with a rated capacity exceeding 55 mm shall be provided with at least one wheel guard to protect the user during normal use against:

Replace the existing second paragraph, dashed text not included, by the following:

If the tool is supplied with one or more accessories, the wheel guard(s) supplied shall be appropriate for the supplied accessory(ies). The wheel guard (hereafter referred to as a guard) may be removable either with the aid of a tool or by fulfilling the following requirements:

Replace the existing third paragraph by the following:

The guard shall also fulfil the following requirements:

- be designed so that, in case of a wheel burst, the guard reduces the risk of injury to the operator, remains attached to the grinder by effective and secure means and complies with the test of 20.101;
- facilitate the change of the abrasive wheel without the need to remove the guard;
- be designed so that the risk of an accidental contact between the operator and the wheel during normal use is minimized e.g. by a possibility of adjustment.

Replace the existing fourth paragraph by the following:

To prevent the installation of an oversized wheel, the clearance between the inside of the guard and the periphery of a new abrasive product in accordance with 8.12.2 a) 101) shall, in at least one location, be 8 mm maximum for tools with a rated capacity not exceeding 130 mm and 10 mm maximum for tools with a rated capacity exceeding 130 mm.

Combine the existing 5th and 6th paragraphs into a new 5th paragraph.

Replace the existing 7th paragraph by the following:

For wheel Types 27, 28 and 29, the guard shall cover the abrasive wheel periphery and the backing flange side for at least 175°. The guard periphery shall have a lip on the outer edge that curls inward for at least 3 mm from the intersect line of the top surface of the thickest wheel and largest wheel diameter, as specified in accordance with 8.12.2 a) 102), with the inner surface of the guard to the inner edge of the lip, measured radially. The face of the thickest recommended wheel shall be at least 2 mm axially from the inner surface of the lip. The ends of the lip protruding the thickest recommended wheel may be chamfered by not more than 45°. See Figure 102.