

Australian Standard[®]

**Hand-operated screwdrivers and
screwdriver bits**

Part 2: Insulated screwdrivers

This Australian Standard was prepared by Committee ME/10, Small Tools. It was approved on behalf of the Council of Standards Australia on 28 September 1989 and published on 12 March 1990.

The following interests are represented on Committee ME/10:

Australian Automobile Association
Confederation of Australian Industry
Deakin University
Department of Industrial Relations and Employment, New South Wales
Department of Technical and Further Education, New South Wales
Fasteners Institute of Australia
Metal Trades Industry Association of Australia
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Part 2: Insulated screwdrivers

First published as AS 3527.2—1990.

PREFACE

This Standard was prepared by the Standards Australia Committee on Small Tools. It has been based on the following Standards:

BS

2559 *Screwdrivers*
Part 3: *Insulated screwdrivers*

DIN

7437 *Insulated tools up to 1000 V screw drivers for slotted screws*

Two types of insulated screwdriver are provided for in this Standard, viz Type A for use on voltages up to 300 V r.m.s., and Type B for up to 1000 V r.m.s. The basis of these separate requirements is that screwdrivers for use on voltages up to 300 V r.m.s. have been in common use without related problems, and have been manufactured in Australia for a number of years, whereas the Standards referred to above specify only the type for use on higher voltages.

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STANDARDS AUSTRALIA

Australian Standard

Hand-operated screwdrivers and screwdriver bits

Part 2: Insulated screwdrivers

1 SCOPE. This Standard specifies requirements for hand-operated screwdrivers specifically intended for use on live electrical apparatus. It does not apply to 'tang-through' screwdrivers.

NOTES:

1. Work on live electrical apparatus should be carried out by appropriately trained personnel, using tools and equipment designed and maintained for the highest voltage level that may be encountered.
2. This Standard refers only to new screwdrivers. Subsequent use or misuse may affect the insulating properties referred to in this Standard. Insulated screwdrivers should be replaced if any damage or noticeable deterioration occurs.
3. Requirements for hand-operated screwdrivers for slotted and cross-recessed fasteners for general use are specified in AS 3527.1.

2 TYPES. Insulated hand-operated screwdrivers shall be of the following types:

- (a) *Type A screwdriver*—for use on voltages up to 300 V r.m.s.
- (b) *Type B screwdriver*—for use on voltages up to 1000 V r.m.s.

3 REFERENCED DOCUMENT. The following document is referred to in this Standard:

AS	
3527	Hand-operated screwdrivers and screwdriver bits
3527.1	Part 1: Screwdrivers for slotted and cross-recessed fasteners

4 DEFINITIONS. For the purpose of this Standard, the definitions given in AS 3527.1 apply.

5 GENERAL REQUIREMENTS. Unless otherwise specified in this Standard, insulated screwdrivers shall comply with AS 3527.1.

The range of sizes and dimensions shall be as specified in AS 3527.1, except that blades shall have a minimum length of 100 mm.

6 MATERIALS FOR HANDLES AND BLADE INSULATION. Handles and blade insulation shall be manufactured from plastics materials with physical and dielectric characteristics equal or superior to those of cellulose acetate.

WARNING: PLASTICS SUCH AS NYLON GPE MAY BE ATTACKED BY CONTACT WITH CERTAIN MINERAL AND ORGANIC ACIDS, RESULTING IN A DETERIORATION OF THEIR INSULATING PROPERTIES.

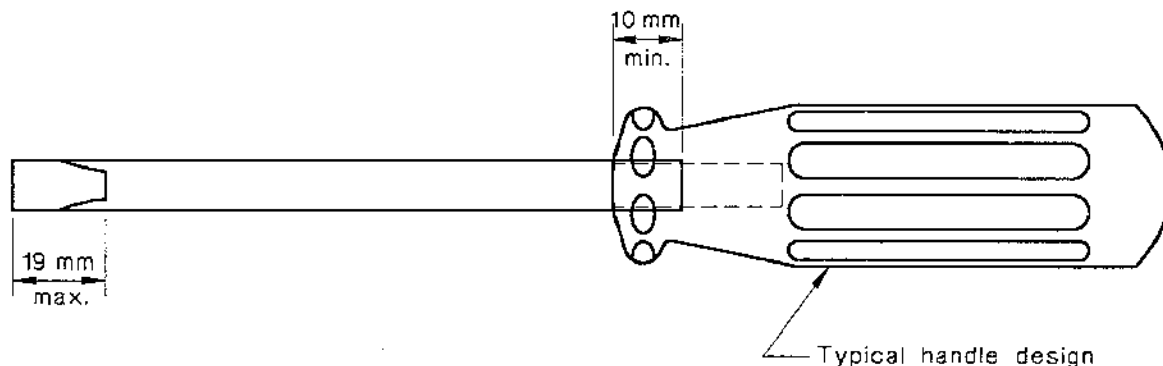
7 INSULATION.

7.1 Type A screwdrivers. Type A screwdrivers shall have the handle and blade insulation either manufactured separately or moulded in one piece. Where the handle and blade insulation are manufactured separately, the blade insulation shall be encapsulated a distance of not less than 10 mm into and permanently bonded to the handle. The insulation shall cover the blade uniformly to within 19 mm of the point, without cracks or flaws, as shown in Figure 1.

Where nylon 11 GPE natural colour is used, the minimum thickness of the insulation shall be as follows:

- (a) For all blades of 4.8 mm diameter or less 0.8 mm.
- (b) For blades larger than 4.8 mm in diameter 1.0 mm.

For other insulation materials, the thickness shall be sufficient to ensure equivalent performance.



NOTE: Type A screwdrivers may also be manufactured as cruciform-point screwdrivers.

FIGURE 1 TYPE A SCREWDRIVER WITH NON-FLARED POINT