AS 2334—1980

Australian Standard®

STEEL NAILS—METRIC SERIES

The following scientific, industrial and governmental organizations were officially represented on the committee entrusted with the preparation of this standard:

Australian Institute of Steel Construction Ltd
Bureau of Steel Manufacturers of Australia
Confederation of Australian Industry
Department of Defence
Electricity Supply Association of Australia
Federal Chamber of Automotive Industries
Institution of Production Engineers
Metal Trades Industry Association of Australia
Petroleum Refinery Engineers Advisory Committee
Railways of Australia Committee
Telecom Australia
University of Sydney

This standard, prepared by Committee ME/29, Fasteners, was approved on behalf of the Council of the Standards Association of Australia on 13 March 1980, and was published on 1 June 1980.

This standard was issued in draft form for public review as DR 73100.

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First published 1980

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 1925 8

PREFACE

This standard was prepared by the Association's Committee on Fasteners in order to meet a wide demand for information on a basic series of steel nails, commonly used in building and similar applications. The need for a standard has also been brought about by the use of nails in structures in high wind areas and in timber engineering applications.

For the purpose of this standard, the lengths chosen are those given for the ISO* first choice metric lengths for fasteners and are in line with lengths used in other metric fastener standards. This should help to unify practices in this regard. With regard to diameters, however, there is currently no international agreement and this standard is based on the Renard R20 series of preferred numbers as given in SAA MP19—Report on Preferred Numbers and Their Use. To avoid confusion and also to clarify nail designation, the diameters are expressed in millimetres and not gauge sizes as was previously the practice in the imperial system.

The committee also noted that different nomenclature for the same nail types is used in different areas, and therefore, with the aim of promoting common nomenclature for nail varieties, this standard has deleted reference to several terms which are becoming obsolescent. For further information, attention is drawn to Clause 3.

In preparing this standard the committee gave serious consideration to the inclusion of a 'stiffness' test to ensure that the nail possesses the specified mechanical properties. It was felt that at the time of publication there was not sufficient authoritative information with regard to this type of test.

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* International Organization for Standardization.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
STEEL NAILS—METRIC SERIES

1 SCOPE. This standard specifies requirements for steel nails, intended for building and general fixing purposes, and including decking spikes and fencing staples.

2 APPLICATION. The nail types within the scope of this standard are as listed in Table 1.

TABLE 1
NAIL TYPES

Nail type	Table No
Bullet head nails	4
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NOTE: Inclusion of nail types in this standard does not necessarily imply that such types are stock items. Users are requested to consult manufacturers' catalogues in this regard.

3 DEFINITIONS. For the purpose of this standard, the following definitions apply:

NOTE: With the aim of promoting common nomenclature for nail varieties, this standard has deleted reference to several terms which are becoming obsolescent, viz:

Jolt head nail—now Bullet head nail, see Clause 3.1.
Brad—now Bullet head nail, see Clause 3.1.
Panel pin—now Hardboard nail, see Clause 3.3.

3.1 Bullet head nail—a nail having a plain cylindrical shank with an integrally formed deep, circular, barrel-shaped head with a flat top surface.

NOTE: These nails are mainly used in timber framing applications, and in the smaller sizes as general finishing nails.

3.2 Flat head nail—a nail having a plain cylindrical shank with an integrally formed thin, circular head with a flat top surface, and in which the bearing surface of the head may either be parallel to the top surface or be slightly countersunk.

NOTE: These nails are mainly used in the fabrication of wooden containers and soft timber framing.

3.3 Hardboard nail—a nail with a plain cylindrical shank having an integrally formed countersunk head with an included angle of approximately 27 degrees, and in which the nail head is designed to penetrate into the surface of wood and wood based panelling, such as hardboard.

NOTE: The nails are normally supplied with a cadmium coating.

3.4 Wallboard nail—a nail with a plain cylindrical shank having an integrally formed countersunk head with an included angle of approximately 90 degrees.

NOTE: These nails are intended mainly for the fixing of all types of wood-based sheet materials, where the nail surface is required to be flush with the surface of the material being fixed.

3.5 Cement sheet nail—a nail having a plain cylindrical shank with an integrally formed thin, circular head and a shear (flat) point designed to penetrate and fix cement sheeting.

NOTE: The nails are supplied with a hot-dip galvanized coating or with an electro-deposited or mechanically deposited zinc coating giving equivalent corrosion protection.

3.6 Flex sheet nail—a nail having a plain cylindrical shank with an integrally formed countersunk head with an included angle of approximately 150 degrees.

NOTE: The nails are supplied with a hot-dip galvanized coating or with an electro-deposited or mechanically deposited zinc coating giving equivalent corrosion protection, and are mainly intended for the fixing of flex sheet or galvanized steel sheeting or similar applications.

3.7 Soft sheet nail—a nail with a plain cylindrical shank with an integrally formed thin circular head.

NOTE: The nails are mainly intended for the fixing of low density materials.

3.8 Clout—a nail having a plain cylindrical shank with an integrally formed flat circular head.

NOTE: The nails are normally supplied with a hot-dip galvanized coating or with an electro-deposited or mechanically deposited zinc coating giving equivalent corrosion protection, and are mainly intended for the general fixing of thin sheet materials.

3.9 Plasterboard nail—a nail having a plain cylindrical shank with an integrally formed head which may be countersunk with an included angle of approximately 120 degrees or be thin at the peripheral edge and taper to a small fillet around the shank.

NOTE: The nails are supplied with a hot-dip galvanized coating or with an electro-deposited or mechanically deposited zinc coating giving equivalent corrosion protection, and are mainly intended for the fixing of plasterboard and similar applications.