

Australian Standard™

**ISO metric hexagon bolts and screws—
Product grade C**

Part 1: Bolts

[ISO title: Hexagon head bolts—Product grade C]



Standards Australia

This Australian Standard was prepared by Committee ME/29, Fasteners. It was approved on behalf of the Council of Standards Australia on 21 April 2000 and published on 23 June 2000.

The following interests are represented on Committee ME/29:

Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Industry Group
Bureau of Steel Manufacturers of Australia
Electricity Supply Association of Australia
Federal Chamber of Automotive Industries
Institute of Materials Engineering Australasia
Metal Building Products Manufacturers Association

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia website at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, PO Box 1055, Strathfield, NSW 2135.

Australian Standard™

**ISO metric hexagon bolts and screws—
Product grade C**

Part 1: Bolts

Originally issued as AS 1111—1972.
Previous edition AS/NZS 1111:1996.
Revised and redesignated, in part, as AS 1111.1—2000.

COPYRIGHT

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd
PO Box 1055, Strathfield, NSW 2135, Australia

ISBN 0 7337 3401 4

PREFACE

This Standard was prepared by the Standards Australia Committee ME/29, Fasteners to supersede AS/NZS 1111:1996, *ISO metric hexagon commercial bolts and screws*, in part.

The objective of this Standard is to provide manufacturers, suppliers and users with the dimensions, tolerances and material requirements for hexagon head bolts ISO product grade C with ISO metric coarse threads.

This Standard is Part 1 of a two-part series on ISO metric hexagon bolts and screws. Part 2 gives the dimensions for screws.

This edition has been technically revised and introduces the designation of product grade C in place of the term 'commercial' which has been used in previous editions.

NOTE: The product grade refers to the quality of the product and to the size of the tolerances where grade A is the most precise and grade C is the least precise.

This Standard is identical with and has been reproduced from ISO 4016:1999, *Hexagon head bolts—Product grade C*.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

As this Standard is reproduced from an International Standard, the following applies:

- Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- In the source text 'this International Standard' should read 'this Australian Standard'.
- A full point should be substituted for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to equivalent Australian Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
ISO		AS	
225	Fasteners—Bolts, screws, studs and nuts—Symbols and designations of dimensions	—	
724	ISO general-purpose metric screw threads—Basic dimensions	—	
888	Bolts, screws and threads—Nominal lengths, and thread lengths for general purpose bolts	—	
898	Mechanical properties of fasteners made of carbon steel and alloy steel	4291	Mechanical properties of fasteners made of carbon steel and alloy steel
898-1	Part 1: Bolts, screws and studs	4291.1	Part 1: Bolts, screws and studs
965	ISO general purpose metric screw threads—Tolerances	—	
965-1	Part 1: Principles and basic data	—	
3259	Fasteners—Acceptance inspection	—	
4018	Hexagon head screws—Product grade C	1111	ISO metric hexagon bolts and screws—Product grade C
		1111.1	Part 2: Screws
4042	Fasteners—Electroplated coatings	—	
4759	Tolerances for fasteners	—	

ISO		AS
4759-1	Part 1: Bolts, screws, studs and nuts— Product grades A, B and C	—
8992	Fasteners—General requirements for bolts, screws, studs and nuts	—
10683	Fasteners—Non-electrolytically applied zinc flake coatings	—

Currently in preview, click buy full version

CONTENTS

	<i>Page</i>
Introduction	v
1 Scope	1
2 Normative references	1
3 Dimensions	2
4 Specifications and reference standards
5 Designation	7
Bibliography	8

Currently in preview, click buy full version

INTRODUCTION

This International Standard is part of the complete ISO product standard series on external hexagon drive fasteners. The series comprises:

- a) hexagon head bolts (ISO 4014 to ISO 4016 and ISO 8765);
- b) hexagon head screws (ISO 4017, ISO 4018 and ISO 8676);
- c) hexagon nuts (ISO 4032 to ISO 4036, ISO 8673 to ISO 8675);
- d) hexagon bolts with flange (ISO 4162 and ISO 15071);
- e) hexagon nuts with flange (ISO 4161 and ISO 10663);
- f) structural bolts and nuts (ISO 4775, ISO 7411 to ISO 7414 and ISO 7417).

Currently in preview, click buy full version

AUSTRALIAN STANDARD

ISO metric hexagon bolts and screws—Product grade CPart 1:
Bolts**1 Scope**

This International Standard specifies the characteristics of hexagon head bolts with threads from M5 up to and including M64 of product grade C.

If, in special cases, specifications other than those listed in this International Standard are required, they should be selected from existing International Standards, for example ISO 724, ISO 888, ISO 898-1, ISO 965-1 and ISO 4759-1.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 225:1983, *Fasteners — Bolts, screws, studs and nuts — Symbols and designations of dimensions.*

ISO 724:1993, *ISO general-purpose metric screw threads — Basic dimensions.*

ISO 888:1976, *Bolts, screws and studs — Nominal lengths, and thread lengths for general purpose bolts.*

ISO 898-1:1999, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs.*

ISO 965-1:1998, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data.*

ISO 3269:—¹⁾, *Fasteners — Acceptance inspection.*

ISO 4018:1999, *Hexagon head screws — Product grade C.*

ISO 4042:1999, *Fasteners — Electroplated coatings.*

ISO 4759-1:—²⁾, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C.*

ISO 8972:1936, *Fasteners — General requirements for bolts, screws, studs and nuts.*

ISO 10683:—³⁾, *Fasteners — Non-electrolytically applied zinc flake coatings.*

¹⁾ To be published. (Revision of ISO 3269:1988)

²⁾ To be published. (Revision of ISO 4759-1:1978)

³⁾ To be published.