AS ISO 7.1—2008
ISO 7-1:1994
ISO 7-1:1994/Cor.1:2007
Reconfirmed 2017

Australian Standard®

Pipe threads where pressure-tight joints are made on the threads

Part 1: Dimensions, tolerances and designation

This Australian Standard® was prepared by Committee ME-028, Screw Threads. It was approved on behalf of the Council of Standards Australia on 30 September 2007.
This Standard was published on 13 February 2008.

The following are represented on Committee ME-028:

- Australian Chamber of Commerce and Industry
- Australian Stainless Steel Development Association
- Engineers Australia
- Federal Chamber of Automotive Industries
- Materials Australia
- Plastics Industry Pipe Association of Australia
- University of Wollongong

This Standard was issued in draft form for comment as DR 06296.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that 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Standards may also be withdrawn.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 that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting **www.standards.org.au**

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at **mail@standards.org.au**, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS ISO 7.1—2008
Pipe threads where pressure-tight joints are made on the threads
Part 1: Dimensions, tolerances and designation

RECONFIRMATION NOTICE

Technical Committee ME-029 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 16 June 2017.

The following are represented on Technical Committee ME-029:

Association of Accredited Certification Bodies
Association of Wall and Ceiling Industries of Australia
Australian Chamber of Commerce and Industry
Australian Engineered Fasteners and Anchors Council
Australian Industry Group
Australian Steel Institute
AUSTROADS
Bureau of Steel Manufacturers of Australia
Galvanizers Association of Australia
Materials Australia
National Association of Steel-Framed Housing
National Association of Testing Authorities Australia
New Zealand Heavy Engineering Research Association
Society of Automotive Engineers- Australasia
Steel Construction New Zealand
Swinburne University of Technology

NOTES

Australian Standard®

Pipe threads where pressure-tight joints are made on the threads

Part 1: Dimensions, tolerances and designation

Originally as part of AS B53—1961.
Previous edition part of AS 1722.1—1975.
Revised in part and redesignated as AS ISO 7.1—2008.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8447 X

PREFACE

This Standard was prepared by the Standards Australia Committee ME-028, Screw Threads to supersede (in part), AS 1722.1—1975, *Pipe threads of Whitworth form,* Part 1: *Sealing pipe threads*.

The objective of this Standard is to provide manufacturers of pipe fittings and associated equipment with the dimensions and tolerances for pipe threads where pressure-tight joints are made on the threads.

This Standard is Part 1 of a two-part series on pipe threads where pressure-tight joints are made on the threads. Part 2 specifies a method by which the threads can be verified by means of limit gauges.

This Standard is identical with and has been reproduced from ISO 7-1:1994, *Pipe threads where pressure-tight joints are made on the threads,* Part 1: *Dimensions, tolerances and designation* and Technical Corrigendum 1 to ISO-7:1994. Technical Corrigendum 1 (2007), which corrects Figure 5, is inserted at the end of the text.

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

(a) Its number appears on the cover and title page while the international standard number appears only on the cover.

(b) In the source text 'this part of ISO 7' should read 'this Australian Standard.'

(c) A full point substitutes for a comma when referring to a decimal marker.

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard	*Australian Standard/New Zealand Standard*
ISO	AS ISO
7 Pipe threads where pressure-tight joints are made on the threads	7 Pipe threads where pressure-tight joints are made on the threads
7-2 Part 2: Verification by means of limit gauges	7.2 Part 2: Verification by means of limit gauges

CONTENTS

Page

1 Scope 1
2 Normative reference 1
3 Definitions 1
4 Symbols 2
5 Dimensions 2
6 Designation 3
7 Thread design 4
8 Gauging 5
9 Combination with fastening thread 5
Annex A Bibliography 7
ISO 7-1:1994 Technical Corrigendum 1 8

AUSTRALIAN STANDARD

Pipe threads where pressure-tight joints are made on the threads —

Part 1:
Dimensions, tolerances and designation

1 Scope

This part of ISO 7 specifies the requirements for thread form, dimensions, tolerances and designation for jointing pipe threads, sizes 1/16 to 6 inclusive, for joints made pressure-tight by the mating of the threads. These threads are taper external, parallel internal or taper internal and are intended for use with pipes suitable for threading and for valves, fittings or other pipeline equipment interconnected by threaded joints.

An appropriate jointing medium should be used on the thread to ensure pressure-tight joints.

NOTES

1 Parallel external pipe threads are not suitable as jointing threads.

2 For pipe threads where pressure-tight joints are not made on the threads, see ISO 228-1.

3 ISO 7-2 gives details of methods of verification of jointing thread dimensions and form and recommended gauging systems.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 7. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7-2:1982, *Pipe threads where pressure-tight joints are made on the threads — Part 2: Verification by means of limit gauges.*

3 Definitions

For the purposes of this part of ISO 7, the following definitions apply (see also figures 3 and 5).

3.1 gauge diameter: Major diameter of the thread, whether external or internal.

3.2 major cone: Imaginary cone which just touches the crests of a taper external thread or the roots of a taper internal thread.

3.3 gauge plane: Plane, perpendicular to the axis of the taper thread, at which the major cone has the gauge diameter.

NOTE 4 For external threads the gauge plane is located at a distance equal to the nominal gauge length from the small end of the thread. For internal threads the gauge plane is located at a distance of half-pitch behind the face of the threaded part. This is in order to give consideration to the start of the thread that has been removed by chamfering.

3.4 gauge length: On an external thread, the distance from the gauge plane to the small end of the thread.

3.5 reference plane: Visible surface of each of the internally and externally threaded parts, which facili-