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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.
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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

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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

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NOTES

Australian Standard®

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

# Part 1: Dimensions, tolerances and designation

Originated as part of AS B53—1961.
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# 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* |
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| 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 |

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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-

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