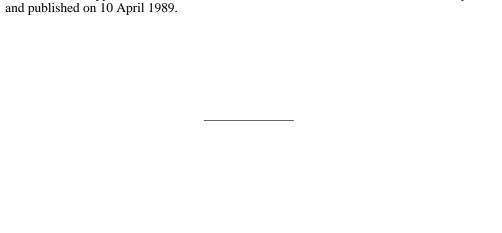
Australian Standard®

Steel tubes and tubulars for ordinary service



This Australian Standard was prepared by Committee WS/4, Steel Pipes and Fittings-Water and Gas. It was approved on behalf of the Council of Standards Australia on 8 February 1989

The following interests are represented on Committee WS/4:

Confederation of Australian Industry
Metal Trades Industry Association of Australia
Public Works Department, New South Wales
The Australian Gas Association

Water Resources Commission, Queensland

Additional interests participating in preparation of Standard:

Water Authority of Western Australia

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

STANDARDS AUSTRALIA

RECONFIRMATION

OF AS 1074–1989 Steel tubes and tubulars for ordinary service

RECONFIRMATION NOTICE

Major stakeholders of this publication have 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 29 August 2018.

Australian Standard®

Steel tubes and tubulars for ordinary service

First published as AS B105—1951. Second edition (endorsement of BS 1387:1957 with amendments—1960. Revised and redesignated AS 1074—1971. Second edition 1976. Third edition 1980. Fourth edition 1989.

PREFACE

This Standard was prepared by the Standards Australia's Committee on Steel Pipes and Fittings—Water and Gas to supersede AS 1074–1980, *Steel tubes and tubulars threaded or suitable for threading with pipe threads of Whitworth form.*

This edition adopts the descriptions, dimensions and masses as specified in BS 138:1985, Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads.

This Standard does not indicate the services for which the tubes are appropriate. Where the use of tubes is not controlled by by–laws or regulations, reference should be made to the appropriate Code of Practice or application Standard. Some Codes of Practice for building relating to town gas and water, and also the relevant by–laws, preclude the use of light tubes for these services. If the application is for pressure purposes, reference should be made to AS CB18, SAA Pressure Piping Code–Part 1: Ferrous piping.

${\small @\ Copyright---STANDARDS\ AUSTRALIA}\\$

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

		Page
SECTI	ON 1. SCOPE AND GENERAL	
1.1	SCOPE	4
1.2	REFERENCED DOCUMENTS	4
1.3	DEFINITIONS	4
1.4	DESIGNATION	4
~~~~		
SECTI	ON 2. TUBES	
2.1	PROCESS OF MANUFACTURE	5
2.2	MATERIAL	5
2.3	DIMENSIONS OF TUBES	5
2.4	PERMISSIBLE VARIATION IN THICKNESS, DIAMETER,	
	AND MASS	5
2.5	SCREW THREADS	6
2.6	LENGTHS	
2.7	GALVANIZING	6
2.8	LEAK TIGHTNESS TEST	6
2.9	DUCTILITY OF FINISHED TUBES	6
2.10	WORKMANSHIP	
2.11 2.12	MARKING PROTECTION	7 7
2.12	PROTECTION	/
SECTI	ON 3. SOCKETS	
3.1	PROCESS OF MANUFACTURE	8
3.2	MATERIAL	8
3.3	DIMENSIONS	8
3.4	SCREW THREADS	8
3.5	GALVANIZING	8
SECTI	ON 4. TUBULARS	
4.1	GENERAL	9
4.2	THREADS	-
4.3	GALVANIZING	
4.4	PIECES	9
4.5	NIPPLES	9
4.6	LONGSCREWS	9
4.7	SOCKETS AND BACKNUTS	9
4.8	BENDS AND SPRINGS	9
4.9	RETURN BENDS	9
APPEN	NDICES	
A I	NFORMATION TO BE SUPPLIED WITH ORDER	14
	EDDY CURRENT TESTING	14
	JLTRASONIC EXAMINATION OF LONGITUDINAL WELD OF	17
	ELECTRIC RESISTANCE WELDED PIPE	15

#### STANDARDS AUSTRALIA

## Australian Standard Steel tubes and tubulars for ordinary service

#### SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This Standard specifies requirements for threaded steel tubes and tubulars, and plain-end steel tubes suitable for screwing as specified in AS 1722.1, and of DN 8 to DN 150 inclusive (nominal size). Three wall thicknesses of tube, designated Light, Medium, and Heavy, are specified in Section 2.

NOTE: Guidelines on information that should be specified by the purchaser or agreed upon at the time of enquiry or order are given in Appendix A.

**1.2 REFERENCED DOCUMENTS.** The following documents are referred to in this Standard.

document	ts are referred to in this Standard.
AS	
1355	Glossary of terms used in connection with water and sanitary plumbing and drainage installations
1391	Methods for tensile testing of metals
1650	Galvanized coatings
1722 1722.1	Pipe threads of Whitworth form Part 1: Sealing pipe threads
1835	Tubes for pressure purposes — Seamless steel
1836	$Tubes\ for\ pressure\ purposes Welded\ steel$
2084	Non-destructive testing — Eddy current testing of metal tubes
BS	
3894	Method for converting elongation values for steel Part 1: Carbon and low alloy steels

65 Carbon steel tubes suitable for screwing in accordance with ISO 7/1

ISO

- **1.3 DEFINITIONS.** For the purpose of this Standard, the definitions given in AS 1355 and those below apply.
- **1.3.1 Tube**—length of uniform circular hollow section.
- **1.3.2 Socket**—internally threaded coupling used in joining tubes.
- **1.3.3** Chamfer machined or cast surface in the form of a cone at the entrance of a thread to assist assembly and prevent damage to the start of the thread.
- 1.3.4 Length of screwed-and-socketed tube.
- **1.3.4.1** *Random length* length of tube with one socket screwed on.
- **1.3.4.2** Exact length—length of tube excluding socket.
- **1.3.5** Nominal size (DN)—a numerical designation of size which is common to all components in a piping system other than components designated by outside diameters or by thread size. It is a convenient round number for reference purposes and is only loosely related to manufacturing dimensions.

NOTE: It is designated by DN followed by a number, e.g. DN 32.

**1.4 DESIGNATION.** Tubes and tubulars shall be designated according to their nominal size.

Sockets and backnuts shall be designated according to the respective nominal sizes of the tubes for which they are intended.