



# Water supply and gas systems—Metallic fittings and end connectors



This Australian Standard® was prepared by Committee WS-001, Water Fittings. It was approved on behalf of the Council of Standards Australia on 13 June 2016. This Standard was published on 27 June 2016.

The following are represented on Committee WS-001:

- Association of Accredited Certification Bodies
- Australian Industry Group
- Building Officials Institute of New Zealand
- CSIRO
- Department of Agriculture and Water Resources (Australian Government)
- Gas Technical Regulators Committee
- Housing Industry Association
- International Copper Association Australia
- Master Plumbers and Mechanical Services Association of Australia (Victoria)
- National Association of Testing Authorities, Australia
- Plastics Industry Pipe Association of Australia
- Plastics NZ
- Plumbing Products Industry Group
- Queensland Brassware Association
- The Institute of Plumbing Australia
- Water Services Association of Australia

This Standard was issued in draft form for comment as DR AS 3688:2015.

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Standards may also be withdrawn.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.

## Australian Standard®

# Water supply and gas systems—Metallic fittings and end connectors

Originated as AS 3688—1994. Previous edition AS 3688—2005. Fourth edition AS 3688:2016.

#### COPYRIGHT

© Standards Australia Limited

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, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 76035 513 5

#### PREFACE

This Standard was prepared by the Joint Standards Australia and Standards New Zealand Committee WS-001, Water Fittings, to supersede AS 3688—2005, *Water supply and gas systems—Metallic fittings and end connectors*.

The objective of this Standard is to provide for innovation and for a range of fittings that allow for a mixture of pipe materials to be used.

It has been expanded to include fittings of other materials and end connectors used to connect pipes and fittings of dissimilar materials.

The term 'normative' has been used in this Standard to define the application of the appendices to which it applies. A 'normative' appendix is an integral part of a Standard.

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

### CONTENTS

### Page

SECTIO	N 1 SCOPE AND GENERAL	
1.1	SCOPE	6
1.2	APPLICATION	6
1.3	REFERENCED DOCUMENTS	6
1.4	DEFINITIONS	7
1.5	DESIGNATION OF SIZE	
1.6	MARKING	
1.7	PRODUCT DOCUMENTATION	
SECTIO	N 2 MATERIALS	
2.1	SCOPE OF SECTION	9
2.2	MATERIALS IN CONTACT WITH DRINKING WATER	9
2.3	METALLIC MATERIALS	9
2.4	PLASTIC COMPONENT MATERIALS	
2.5	OTHER COMPONENT MATERIALS	
SECTIO	N 3 DESIGN AND DIMENSIONS	
3.1	SCOPE OF SECTION	11
3.2	TUBE STOPS	11
3.3	SLIP FITTINGS	
3.4	SPIGOTS	
3.5	FIXING DEVICE	
3.6	WATERWAYS	
3.7	THICKNESS OF METAL PARTS OF FITTINGS SPECIFIED BY DIMENSION	
3.8	PIPE THREADS	
3.9	FABRICATED FITTINGS	
3.10	GEOMETRY OF FITTINGS	
3.11		
	FINISH AND WORKMANSHIP	
5.12		15
SECTIO	N 4 PERFORMANCE REQUIREMENTS	
4.1	SCOPE OF SECTION	16
4.2	LEAKTIGHTNESS UNDER INTERNAL PRESSURE TEST	
4.3	STRENGTH OF FABRICATED JOINT (TORQUE TEST)	
4.4	STRENGTH OF JOINT ASSEMBLY (PRESSURE CYCLING TEST)	
4.5	RESISTANCE TO PULL-OUT OF ASSEMBLED JOINTS	
4.6	STRENGTH OF NUT AND ASSEMBLEY (TORQUE TEST)	
4.7	LEAKTIGHTNESS UNDER INTERNAL PRESSURE WHILST SUBJECTED TO	
т./	BENDING	
4.8	METHOD FOR DETERMINING COMPATIBILITY OF WATER FITTINGS WIT	
4.0	PIPE	
4.0	ROLL-GROOVED ASSEMBLY (JOINT PRESSURE RESISTANCE TEST)	
4.9		1/
4.10	VACUUM TEST FOR LEAKTIGHTNESS OF JOINTS WITH TUBE UNDER	17
1 1 1	VACUUM LEAKTIGHTNESS UNDER INTERNAL PNEUMATIC PRESSURE	
	RESISTANCE OF GAS PRESS FITTINGS TO TEMPERATURE CYCLING	
	RESISTANCE OF PRESS FITTING JOINTS AND TUBES TO VIBRATION	
4.14	RESISTANCE OF GAS PRESS FITTINGS TO HIGH TEMPERATURE	17



This is a free preview. Purchase the entire publication at the link below:

**Product Page** 

S Looking for additional Standards? Visit Intertek Inform Infostore

> Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation