

Australian Standard[®]

**Butterfly valves for waterworks
purposes**

Part 1: Wafer and lugged



This Australian Standard® was prepared by Committee WS-022, Valves for Water Supply Purposes. It was approved on behalf of the Council of Standards Australia on 17 March 2011.

This Standard was published on 27 May 2011.

The following are represented on Committee WS-022:

- Australian Chamber of Commerce and Industry
 - Australian Industry Group
 - Australian Stainless Steel Development Association
 - Australian Water Association
 - Engineers Australia
 - Institute of Instrumentation, Control and Automation Australia Inc.
 - Master Plumbers Australia
 - Plastics Industry Pipe Association of Australia
 - Plumbing Products Industry Group
 - Water Corporation Western Australia
 - Water Industry Alliance
 - Water New Zealand
 - Water Services Association of Australia
-

This Standard was issued in draft form for comment as DR AS 4795.1.

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Standards may also be withdrawn.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[®]

**Butterfly valves for waterworks
purposes**

Part 1: Wafer and lugged

First published as AS 4795—2006.
AS 4795—2006 revised and redesignated, in part, as AS 4795.1—2011.

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 0 7337 9869 6

PREFACE

This Standard was prepared by the Joints Standards Australia/Standards New Zealand Committee WS-022, Valves for Waterworks Purposes, to supersede, in part, AS 4795—2006.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide material requirements and performance tests for wafer and tapped lugged butterfly valves for use in water supply plants, including drinking water, recycled water and screened wastewater systems, together with default compliance requirements for the use of manufacturers and conformity assessment bodies.

Support and contribution is acknowledged from the Water Services Association of Australia (WSAA) and manufacturers.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	4
1.2 APPLICATION	4
1.3 NORMATIVE REFERENCES	4
1.4 DEFINITIONS	6
1.5 DESIGNATION OF SIZE	7
1.6 ALLOWABLE OPERATING PRESSURES	8
SECTION 2 MATERIALS AND COMPONENTS	
2.1 GENERAL	9
2.2 CORROSION-RESISTANT MATERIALS	9
2.3 CONTAMINATION OF WATER	9
2.4 ELASTOMERIC COMPONENTS	9
SECTION 3 DESIGN	
3.1 GENERAL	11
3.2 END CONNECTIONS	11
3.3 COMPONENT DESIGN	12
3.4 OPERATION	13
3.5 LIFTING DEVICES	14
3.6 FASTENERS	14
SECTION 4 PROTECTIVE COATINGS	
4.1 GENERAL	15
4.2 COMPONENTS	15
SECTION 5 PERFORMANCE TESTS	
5.1 GENERAL AND TEST SEQUENCE	16
5.2 TYPE TESTS	16
5.3 PRODUCTION TESTS	17
SECTION 6 MARKING AND PACKAGING	
6.1 MARKING	19
6.2 DIRECTION OF CLOSURE FOR HANDWHEELS AND CAPS	19
6.3 PACKAGING	19
APPENDICES	
A MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS STANDARD	20
B PURCHASING GUIDELINES	24
C ALTERNATIVE COATING—TWO-PACK EPOXY COATING	27
BIBLIOGRAPHY	29

STANDARDS AUSTRALIA

Australian Standard

Butterfly valves for waterworks purposes

Part 1: Wafer and lugged

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for PN 10 and PN 16, manually operated, resilient-seated, seal-on-body wafer and tapped lugged butterfly valves in the size range of DN 50 to DN 600 for waterworks purposes, with a maximum operating temperature of 40°C.

This Standard covers the following:

- (a) Manual actuators, gearboxes and standard spindle caps.
- (b) Water supply applications that include drinking and recycled water.
- (c) Sewerage applications limited to screened sewage.
- (d) The capability of the valves to be fitted with electric, hydraulic or pneumatic actuators.

NOTES:

- 1 Purchasing requirements that should be agreed upon at time of inquiry or order are given in Appendix B.
- 2 Double flanged valves for buried service are covered in AS 4795.2

1.2 APPLICATION

Appendix A sets out the means by which compliance with this Standard shall be demonstrated by a manufacturer for the purposes of product certification.

1.3 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard.

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

AS	
681	Elastomeric seals—Material requirements for pipe joint seals used in water and drainage applications
681.1	Part 1: Vulcanized rubber
1111	ISO metric hexagon commercial bolts and screws—Product grade C
1111.1	Part 1: Bolts
1111.2	Part 2: Screws
1112	ISO metric hexagon nuts
1112.3	Part 3: Product grade C
1214	Hot-dip galvanized coatings on threaded fasteners (ISO metric coarse thread series)
1565	Copper and copper alloys—Ingots and castings