



WATER SERVICES
ASSOCIATION OF AUSTRALIA

INDUSTRY STANDARD

FOR FLANGE GASKETS AND O-RINGS

WSA 109 - 2021

(Incorporating Amendment No 1 and 2)

Third Edition

Version 3.2

WSA 109:2021 Extract Only

2023

WSA 109 - FLANGE GASKETS AND O-RINGS

ACKNOWLEDGEMENTS

WSAA acknowledges the significant technical input of Peter Pittard (WSAA Consultant), Jason Hall (Reece Australia Pty Ltd) and Bruce Gawler (Steel Mains Pty Ltd) for their contribution to the revision of this Water Industry Standard.

Other organisations that contributed includes Plastics Industry Pipe Association of Australia (PIPA), Hultec Asia Pacific Pty Ltd, Clover Pipelines Pty Ltd, Daemco Australia Pty Ltd, Industrial Gaskets and Sealing Devices Pty Ltd.

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PUBLICATION DETAILS

Published by:

Water Services Association of Australia Limited
Suite 8.02, Level 8, 401 Docklands Drive
Docklands VIC 3008 Australia

ISBN: 978-0-6450026-4-5

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PREFACE

This Standard was prepared by the Water Services Association of Australia (WSAA).

The objective of this Standard is to define material requirements for flange gaskets and O-rings and guidelines for joining flanges commonly utilized in water supply and sewerage pipelines.

The Standard will be withdrawn upon publication of an equivalent Australian Standard.

This revision is the result of a comprehensive review. The major amendments are detailed below:

- Material testing requirements that are contained within an alternative Standard have been removed from this document and appropriately referenced.

- The Scope of this Standard has been revised and clarified.
- Estimated tightening torques for flanged joints have been removed. Tightening torques rely on many variables and these recommendations are best left to manufacturers.
- Sealability tests have been removed. Sealability type tests were completed by Tyco Water in 2003 to demonstrate suitability of the gasket materials specified within this Standard. In addition the Industry has now been successfully utilising materials specified in WSA 109 for more than 15 years. It is considered unnecessary and impractical for gasket material suppliers or gasket manufacturers to undertake ongoing performance tests for gasket materials already proven to be fit for purpose.
- Gasket dimensions have been rationalised to specify the same dimensions regardless of flange material. A dimensional analysis verified that the internal flange dimensions specified in this Standard do not intrude into the waterway of flanges commonly utilised in the Australian water industry.
- The informative Appendix D includes additional and updated guidelines for flanged joint assembly.

WSAA welcomes suggestions for improvements and encourages Users to notify us immediately of any apparent inaccuracies or ambiguities. Users may use the feedback link on the side menu of this Code to submit comments or suggested improvements. Alternatively you can also contact us via email at codes@wsaa.asn.au, or write to the National Codes Manager, Suite 8.02, Level 8, 401 Docklands Drive, Docklands, 3008.

To increase the likelihood of suggested amendments being adopted it is recommended that Users seek preliminary review by and support of a WSAA Member or other relevant organisation, for example, CSIRO, Civil Contractors Federation or PIPA for inclusion with the submission.

This Standard was issued on 23rd of April 2021, following a public review period that closed on 11th February 2021.

Originated as WSA 109:2001

Second edition: WSA 109:2011

Third edition: WSA 109:2021

Reissued incorporating Amendment No 1 (April 2023)

Contents

| | |
|---|----|
| List of Figures..... | 5 |
| List of Tables..... | 5 |
| WSA 109 - Flange Gaskets and O-Rings..... | 2 |
| ACKNOWLEDGEMENTS..... | 2 |
| DISCLAIMER..... | 2 |
| PUBLICATION DETAILS..... | 2 |
| COPYRIGHT..... | 2 |
| PREFACE..... | 2 |
| 1 SCOPE AND GENERAL..... | 6 |
| 1.1 SCOPE..... | 6 |
| 1.2 REFERENCED DOCUMENTS..... | 6 |
| 1.3 DEFINITIONS..... | 7 |
| 1.4 ALLOWABLE PRESSURES..... | 7 |
| 2 MATERIALS..... | 8 |
| 2.1 GENERAL..... | 8 |
| 2.2 CONTAMINATION OF WATER..... | 8 |
| 2.3 MATERIAL REQUIREMENTS..... | 8 |
| 2.4 MATERIAL PROPERTIES..... | 8 |
| 2.4.1 Elastomeric flange gaskets and O-rings..... | 8 |
| 2.4.2 Compressed fibre gaskets..... | 8 |
| 3 MANUFACTURING REQUIREMENTS..... | 10 |
| 3.1 FORM..... | 10 |
| 3.2 DIMENSIONS..... | 10 |
| 3.3 IMPERFECTIONS AND DEFECTS..... | 10 |
| 3.4 O-RING SPLICE JOINT..... | 10 |
| 3.5 MARKING..... | 10 |
| 3.6 STORAGE..... | 10 |
| APPENDICES..... | 12 |
| APPENDIX A — MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS STANDARD..... | 12 |
| A1 SCOPE..... | 12 |
| A2 RELEVANCE..... | 12 |
| A3 TESTING..... | 12 |
| A3.1 General..... | 12 |
| A3.2 Testing..... | 12 |
| A3.3 Retesting..... | 12 |
| A4 PRODUCT CONFORMITY ASSESSMENT REQUIREMENTS..... | 12 |
| APPENDIX B — PURCHASING GUIDELINES..... | 14 |
| B1 GENERAL..... | 14 |
| B2 INFORMATION TO BE SUPPLIED BY THE PURCHASER..... | 14 |
| B3 CERTIFICATES..... | 14 |
| B3.1 Certificate of compliance..... | 14 |
| B3.2 Test Certificate..... | 14 |
| B4 INFORMATION TO BE SUPPLIED BY THE MANUFACTURER..... | 14 |
| APPENDIX C — GASKET DIMENSIONS..... | 16 |
| C1 DIMENSIONS..... | 16 |
| C2 TOLERANCES..... | 16 |
| APPENDIX D — FLANGED JOINT ASSEMBLY..... | 19 |
| D1 SCOPE..... | 19 |
| D2 DISCLAIMER..... | 19 |
| D3 FLANGED JOINTS..... | 19 |

| | |
|--|----|
| D4 GASKETS..... | 20 |
| D5 FASTENERS..... | 20 |
| D6 ASSEMBLY OF FLANGED JOINTS..... | 20 |
| D7 PRECAUTIONS..... | 20 |
| D8 PROCEDURE..... | 21 |
| D8.1 JOINTING INSTRUCTIONS FOR FLANGED JOINTS..... | 21 |

List of Figures

| | |
|---|----|
| Figure D.1 O-RING FLANGED JOINT– STEEL SHOWN..... | 19 |
| Figure D.2 RAISED FACE FLANGED JOINT– STEEL SHOWN | 20 |
| Figure D.3 STAR PATTERN TIGHTENING SEQUENCE..... | 21 |

List of Tables

| | |
|---|----|
| Table 1.1 ALLOWABLE PRESSURES..... | 7 |
| Table 2.1 MATERIAL REQUIREMENTS..... | 8 |
| Table 2.2 MATERIAL PROPERTIES FOR COMPRESSED FIBRE..... | 8 |
| Table A.1 MINIMUM SAMPLING AND TESTING FREQUENCY PLAN..... | 12 |
| Table C.1 TOLERANCES..... | 16 |
| Table C.2 FLANGE GASKET DIMENSIONS FOR AS/NZS 4087 PN 16 FLANGES..... | 16 |
| Table C.3 FLANGE GASKET DIMENSIONS FOR AS/NZS 4087 PN 21 AND PN 35 FLANGES..... | 17 |