

Australian Standard™

Automatic fire sprinkler systems

Part 1: General requirements

Building Code of Australia
Primary referenced Standard



This Australian Standard was prepared by Committee FP/4, Automatic Sprinkler Installations. It was approved on behalf of the Council of Standards Australia on 15 October 1999 and published on 5 December 1999.

The following interests are represented on Committee FP/4:

- Association of Consulting Engineers Australia
- Australasian Fire Authorities Council
- A1 | Australian Building Codes Board
- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Department of Defence (Australia)
- FPA Australia
- Institution of Engineers Australia
- Insurance Council of Australia
- Property Council of Australia

Additional interests participating in preparation of Standard:

- Testing interests (Australia)
-

Keeping Standards up-to-date

Standards are living documents which 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 Standards may also be withdrawn.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 which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for the improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, PO Box 1055, Strathfield, NSW 2135.

AS 2118.1—1999
(Incorporating Amendment No. 1)

Australian Standard™

Automatic fire sprinkler systems

Part 1: General requirements

Originated as AS CA16—1939.
Previous edition AS 2118—1982.
Revised and redesignated in part as AS 2118.1—1999.
Reissued incorporating Amendment No. 1 (June 2000).

COPYRIGHT

© Standards Australia International

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.

Published by Standards Australia International Ltd
PO Box 1055, Strathfield, NSW 2135, Australia

ISBN 0 7337 3021 3

PREFACE

This Standard was prepared by the Standards Australia Committee FP/4, Automatic Sprinkler Installations, to supersede AS 2118.1 — 1995, *Automatic fire sprinkler systems, Part 1: Standard*.

This Standard incorporates Amendment No. 1 (June 2000). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure, or part thereof affected.

The objective of this edition is to include changes that reflect recent advances in technology and to refine the content for clarity and conciseness.

Significant changes have been made to Section 3 concerning exposure protection, and to Section 5 relating to protection of concealed spaces. Sections 10, 11 and 12, in respect to hydraulic calculation methods, have also received attention. Section 9, Light hazard class systems, has been entirely rewritten to include more useable and up-to-date parameters for the design of this class of system. The definitions clauses have been enlarged and the informative text for occupancy classification is set out in an appendix.

The revision to the AS 2118 suite of Standards has included Standards Australia's requirements to keep product and installation Standards separate. The series comprises the following:

AS

2118	Automatic fire sprinkler systems
2118.1	Part 1: General requirements
2118.2	Part 2: Wall wetting sprinklers (Drenchers)
2118.3	Part 3: Deluge
2118.4	Part 4: Residential
2118.5	Part 5: Domestic
2118.6	Part 6: Combined sprinkler and hydrant
2118.8	Part 8: Minor modifications
2118.9	Part 9: Piping support and installation
2118.10	Part 10: Approval documentation
4118	Fire sprinkler systems
4118.1.1	Part 1.1: Components—Sprinklers and sprayers
4118.1.2	Part 1.2: Components—Alarm valves (wet)
4118.1.3	Part 1.3: Components—Water motor alarms
4118.1.4	Part 1.4: Components—Valve monitors
4118.1.5	Part 1.5: Components—Deluge and pre-action valves
4118.1.6	Part 1.6: Components—Stop valves and non-return valves
4118.1.7	Part 1.7: Components—Alarm valves (dry)
4118.1.8	Part 1.8: Components—Pressure reducing valves
4118.1.9	Part 1.9: Components—Accelerators and exhausters
4118.2.1	Part 2.1: Piping—General

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.

This Standard incorporates commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by 'C' preceding the clause number and is printed in italics in a box. The commentary is for information only and does not need to be followed for compliance with the Standard.

CONTENTS

	<i>Page</i>
FOREWORD	6
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	7
1.2 OBJECTIVE	7
1.3 APPLICATION	7
1.4 NEW DESIGNS AND INNOVATIONS	7
1.5 REFERENCED DOCUMENTS	7
1.6 DEFINITIONS	7
SECTION 2 CLASSES OF SPRINKLER SYSTEMS AND DESIGN DATA	
2.1 CLASSIFICATION OF SYSTEMS	13
2.2 CLASSIFICATION OF OCCUPANCIES	13
2.3 TYPES OF SPRINKLER SYSTEMS	13
2.4 DESIGN DATA	20
SECTION 3 INSTALLATION	
3.1 SPRINKLER-PROTECTED BUILDINGS	21
3.2 TRANSMISSION OF ALARM SIGNAL TO FIRE BRIGADE	24
3.3 LOCAL ALARM	24
3.4 SYSTEM COMPONENT FAULT MONITORING	25
SECTION 4 WATER SUPPLIES	
4.1 GENERAL	27
4.2 ACCEPTABLE SOURCES OF SUPPLY	27
4.3 WATER SUPPLY GRADES	28
4.4 CONNECTIONS TO OTHER SERVICES	39
4.5 PRESSURE AND FLOW REQUIREMENTS	41
4.6 PRESSURE CONSIDERATIONS	41
4.7 MINIMUM CAPACITY OF STORED WATER SUPPLIES	41
4.8 PUMP SUCTION TANKS	41
4.9 PRIVATE WATER SUPPLIES	48
4.10 TOWN MAINS	48
4.11 PUMP INSTALLATIONS	50
4.12 PUMPSETS	51
4.13 PRESSURE TANKS	56
4.14 PROVING OF WATER SUPPLIES	58
SECTION 5 SPACING AND LOCATION OF SPRINKLERS	
5.1 STANDARD SPACING	60
5.2 STAGGERED SPACING	60
5.3 MINIMUM DISTANCE BETWEEN SPRINKLERS	60
5.4 LOCATION OF SPRINKLERS (OTHER THAN SIDEWALL SPRINKLERS)	60
5.5 SPACING AND LOCATION OF SIDEWALL SPRINKLERS	65
5.6 LOCATIONS OR CONDITIONS INVOLVING SPECIAL CONSIDERATION (SUPPLEMENTARY PROTECTION)	66
5.7 OBSTRUCTIONS BELOW SPRINKLERS	73
5.8 FILM AND TELEVISION PRODUCTION STUDIOS	75

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

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-