

AS 2118.1—1995

Australian Standard[®]

Automatic fire sprinkler systems

Part 1: 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 30 March 1995 and published on 5 July 1995.

The following interests are represented on Committee FP/4:

Asset Services—Department of Administrative Services
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Chamber of Manufactures
Australian Fire Authorities Council
Australian Fire Protection Association
Australian Water and Sewerage Authorities
Commonwealth Fire Board
CSIRO—Division of Building, Construction
Department of Defence
Fire Protection Industry Association of Australia
Institution of Engineers, Australia
Insurance Council of Australia
Master Plumbers and Mechanical Services Association of Victoria
Melbourne Water
New Zealand Fire Equipment Association
Telecom Australia
Testing Interests
The Association of Consulting Engineers, 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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.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.

This Standard was issued in draft form for comment as DR 92188.

AS 2118.1—1995

Australian Standard[®]

Automatic fire sprinkler systems
Part 1: Standard

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 9790 9

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FP/4 on Automatic Sprinkler Installations to supersede in part AS 2118—1988, *SAA Code for Automatic Fire Sprinkler Systems*, and is the result of a consensus among representatives on the joint committee to produce it as an Australian Standard.

The revisions to AS 2118 have included Standards Australia's requirements to keep product and installation Standards separate. When complete the series will comprise:

AS

2118 Automatic fire sprinkler systems

- Part 1: Standard
- Part 2: Wall wetting sprinklers (Drenchers)
- Part 3: Deluge
- Part 4: Residential
- Part 5: Domestic
- Part 6: Combined sprinkler and hydrant
- Part 9: Piping support and installation
- Part 10: Approval documentation

4118 Fire sprinkler systems

- Part 1.1: Components—Sprinklers and sprayers
- Part 1.2: Components—Alarm valves (wet)
- Part 1.3: Components—Water motor alarms
- Part 1.4: Components—Valve monitors
- Part 1.5: Components—Deluge and pre-action valves
- Part 1.6: Components—Stop valves and non-return valves
- Part 1.7: Components—Alarm valves (dry)
- Part 1.8: Components—Pressure reducing valves
- Part 1.9: Components—Accelerators and exhausters

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.

© 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

| | <i>Page</i> |
|---|-------------|
| SECTION 1 SCOPE, DEFINITIONS, CLASSIFICATION AND DESIGN DATA | |
| 1.1 SCOPE | 6 |
| 1.2 NEW DESIGNS AND INNOVATIONS | 6 |
| 1.3 REFERENCED DOCUMENTS | 6 |
| 1.4 DEFINITIONS | 6 |
| SECTION 2 CLASSES OF SPRINKLER SYSTEMS AND DESIGN DATA | |
| 2.1 CLASSES OF SYSTEMS | 8 |
| 2.2 CLASSIFICATION OF OCCUPANCIES | 8 |
| 2.3 TYPES OF SYSTEMS | 13 |
| 2.4 DESIGN DATA | 19 |
| SECTION 3 INSTALLATION | |
| 3.1 SPRINKLERED BUILDINGS | 20 |
| 3.2 TRANSMISSION OF ALARM SIGNAL TO FIRE BRIGADE | 21 |
| 3.3 LOCAL ALARM | 22 |
| 3.4 SYSTEM MONITORING | 22 |
| SECTION 4 WATER SUPPLIES | |
| 4.1 GENERAL | 23 |
| 4.2 ACCEPTABLE SOURCES OF SUPPLY | 23 |
| 4.3 WATER SUPPLY GRADES | 23 |
| 4.4 CONNECTIONS TO OTHER SERVICES | 35 |
| 4.5 PRESSURE AND FLOW REQUIREMENTS | 36 |
| 4.6 PRESSURE CONSIDERATIONS | 37 |
| 4.7 MINIMUM CAPACITY OF STORED WATER SUPPLIES | 37 |
| 4.8 PUMP SUCTION TANKS | 37 |
| 4.9 PRIVATE WATER SUPPLIES | 43 |
| 4.10 TOWN MAINS | 43 |
| 4.11 PUMP INSTALLATIONS | 44 |
| 4.12 PUMPSETS | 45 |
| 4.13 PRESSURE TANKS | 49 |
| 4.14 PROVING OF WATER SUPPLIES | 51 |
| SECTION 5 SPACING AND LOCATION OF SPRINKLERS | |
| 5.1 STANDARD SPACING | 53 |
| 5.2 STAGGERED SPACING | 53 |
| 5.3 MINIMUM DISTANCE BETWEEN SPRINKLERS | 53 |
| 5.4 LOCATION OF SPRINKLERS (OTHER THAN SIDEWALL SPRINKLERS) .. | 53 |
| 5.5 SPACING AND LOCATION OF SIDEWALL SPRINKLERS | 58 |
| 5.6 LOCATIONS OR CONDITIONS INVOLVING SPECIAL CONSIDERATION (supplementary protection) | 59 |
| 5.7 OBSTRUCTIONS BELOW SPRINKLERS | 63 |
| 5.8 FILM AND TELEVISION PRODUCTION STUDIOS | 64 |
| 5.9 THEATRES AND MUSIC HALLS (protection on the stage side of the proscenium wall) | 64 |
| 5.10 COLD STORAGE WAREHOUSE | 64 |

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
-