AS 2118.1:2017
(Incorporating Amendment Nos 1, 2 and 3)

AS 2118.1:2017

Australian STANDARD

Automatic fire sprinkler systems

Part 1: General systems

STANDARDS Australia

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- Association of Hydraulic Services Consultants Australia
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- Australian Chamber of Commerce and Industry
- Bulky Goods Retailers Association
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- Department of Human Services (VIC)
- Engineers Australia
- Fire Protection Association Australia
- Insurance Council of Australia
- National Fire Industry Association Australia

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AS 2118.1:2017
(Incorporating Amendment Nos 1, 2 and 3)

Australian Standard®

Automatic fire sprinkler systems

Part 1: General systems

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PREFACE

This Standard was prepared by the Standards Australia Committee FP-004, Automatic Sprinkler Installations, to supersede AS 2118.1—2006.

This Standard incorporates Amendment No. 1 (December 2017), Amendment No. 2 (July 2020) and Amendment No. 3 (February 2024). 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.

Changes to this edition are the following:

(a) Incorporation of amendments to the 2006 edition.

(b) Section 12—now Section 14, Hydraulic calculation methods.

(c) Significant changes to Section 3 concerning exposure protection, and to Section 5 relating to protection of concealed spaces.

(d) Section 9, Light Hazard class systems, entirely rewritten to include more useable and up-to-date parameters for the design of this class of system.

(e) New Sections 11, 12 and 13 (High Hazard).

(f) Expanded definitions clause.

(g) Inclusion of informative text for occupancy classification (Appendix A).

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 systems (this Standard)
2118.2	Part 2:	Drencher systems
2118.3	Part 3:	Deluge
2118.4	Part 4:	Sprinkler protection for accommodation buildings not exceeding four storeys in height
2118.5	Part 5:	Home fire sprinkler systems
2118.6	Part 6:	Combined sprinkler and hydrant systems in multistorey buildings
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

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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.

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FOREWORD

Automatic fire sprinkler systems provide an important level of fire protection to a building structure. Additionally, automatic fire sprinklers provide an important level of protection for the occupants of a building together with protection to the environment by minimizing the effects that a major structural fire could have. Sprinklers also safeguard against loss of plant, machinery, equipment and building contents generally as well as protecting a business by providing against loss of continuity of business operations. Sprinklers also conserve water during firefighting operations.

In modern buildings and indeed with older buildings that are being upgraded to meet the latest requirements in fire safety, there is need to consider other systems that impact on the function and operation of a sprinkler system. Other systems that can either interface with the sprinkler system, or be integrated in it, are automatic heat and smoke detectors, emergency warning and intercommunication systems and smoke control and air-handling systems. Hence, when designing sprinkler systems, it will be necessary to consider the interaction of sprinkler systems with other building fire safety systems in order to maximize protection and provide an optimal approach for the overall objectives of fire safety.

STANDARDS AUSTRALIA

Australian Standard
Automatic fire sprinkler systems

Part 1: General systems

S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE

This Standard specifies requirements for the design, installation and commissioning of automatic fire sprinkler systems in buildings. It also provides for occupancy classification.

This Standard does not provide requirements for the design or installation of water mist fire protection systems.

NOTE: For details of occupancy classification, see Appendix A.

1.2 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard.

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

AS
1074 Steel tubes and tubulars for ordinary service

1281 Cement mortar lining of steel pipes and fittings

1349 Bourdon tube pressure and vacuum gauges

1432 Copper tubes for plumbing, gasfitting and drainage applications

1579 Arc-welded steel pipes and fittings for water and waste-water

1670 Fire detection, warning, control and intercom systems—System design, installation and commissioning
1670.1 Part 1: Fire
1670.3 Part 3: Fire alarm monitoring

1674 Safety in welding and allied processes (series)

1735 Lifts, escalators and moving walks (series)

1940 The storage and handling of flammable and combustible liquids

2118 Automatic fire sprinkler systems
2118.2 Part 2: Drencher systems
2118.3 Part 3: Deluge systems
2118.4 Part 4: Sprinkler protection for accommodation buildings not exceeding four storeys in height
2118.5 Part 5: Home fire sprinkler systems
2118.6 Part 6: Combined sprinkler and hydrant systems in multistorey buildings

2201 Intruder alarm systems
2201.2 Part 2: Monitoring centres

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