

Australian/New Zealand Standard™

Portable fire extinguishers

Part 1: General requirements



AS/NZS 1841.1:2007

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee FP-003, Fire Extinguishers. It was approved on behalf of the Council of Standards Australia on 10 June 2007 and on behalf of the Council of Standards New Zealand on 6 July 2007.

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The following are represented on Committee FP-003:

Association of Accredited Certification Bodies
Australasian Fire Authorities Council
Australian Building Codes Board
Australian Competition and Consumer Commission
Certification Interests (Australia)
Fire Protection Association Australia
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Australian/New Zealand Standard™

Portable fire extinguishers

Part 1: General requirements

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FP-003, Fire Extinguishers, to supersede AS/NZS 1841.1:2007.

This Standard is part of the following series on portable fire extinguishers:

AS/NZS

1841	Portable fire extinguishers
1841.1	Part 1: General requirements (this Standard)
1841.2	Part 2: Specific requirements for water type extinguishers
1841.3	Part 3: Specific requirements for wet chemical type extinguishers
1841.4	Part 4: Specific requirements for foam type extinguishers
1841.5	Part 5: Specific requirements for powder type extinguishers
1841.6	Part 6: Specific requirements for carbon dioxide type extinguishers
1841.7	Part 7: Specific requirements for vaporizing liquid type extinguishers
1841.8	Part 8: Specific requirements for non-rechargeable type extinguishers

The objective of this Standard is to provide general requirements for portable fire extinguishers other than aerosol type, the requirements for which are specified in AS/NZS 4353, *Portable fire extinguishers—Aerosol type*.

The objective of this revision is to bring the Standard up to date with current practices.

Requirements for the selection and location of portable fire extinguishers in Australia are set out in AS 2444, *Portable fire extinguishers and fire blankets—Selection and location*.

Provisions for the maintenance of fire extinguishers are set out in AS 1851, *Maintenance of fire protection systems and equipment*, for Australia and NZS 4503, *Hand-operated fire-fighting equipment*, for New Zealand.

The main differences between this Standard and the 1997 edition are as follows:

- (a) The inclusion of a filling tolerance on liquid level indication.
- (b) The inclusion of a filling tolerance on the extinguishant charge.
- (c) Inclusion of an alternative method for determining the effective discharge time of an extinguisher.
- (d) Inclusion of an alternative method for the discharge testing of carbon dioxide extinguishers after the high temperature component material test, and some clarification of the labelling requirements.

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

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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Australian/New Zealand Standard
Portable fire extinguishers

Part 1: General requirements

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for portable fire extinguishers. It covers materials, methods of manufacture and performance of the extinguisher and any associated compressed gas container, instructions and markings.

NOTES:

- 1 Specific requirements for individual types of fire extinguishers are given in AS/NZS 1841.2, AS/NZS 1841.3, AS/NZS 1841.4, AS/NZS 1841.5, AS/NZS 1841.6, AS/NZS 1841.7 and AS/NZS 1841.8
- 2 A portable fire extinguisher is generally referred to in this Standard as 'an extinguisher' or 'the extinguisher' and typical components used in portable fire extinguishers are illustrated in Figure 1.1.
- 3 Manufacturers making a statement of compliance with this Australian/New Zealand Standard on a product, or on packaging or promotional material related to that product, should ensure that such compliance is capable of being verified.

1.2 NEW DESIGNS AND INNOVATIONS

Any material, design, method of assembly or procedure that does not comply with the specific requirements of this Standard may be used provided the following criteria are met:

- (a) The portable fire extinguisher complies with the performance and test requirements of the Standard.
- (b) A certifying body having JAS-ANZ registration for product certification to Australian/New Zealand Standard AS/NZS 1841 attests in writing that it is no less safe than a portable fire extinguisher manufactured in accordance with the specific requirements of this Standard. The relative safety of the portable fire extinguishers is determined with regard to the purpose of the extinguishers, any instructions and warnings relating to the use of the extinguishers, and what might reasonably be expected to be done with or in relation to the extinguishers.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1777	Aluminium cylinders for compressed gases—Seamless—0.1 kg to 130 kg
1851	Maintenance of fire protection systems and equipment
2030	The verification, filling, inspection, testing and maintenance of cylinders for the storage and transport of compressed gases
2030.1	Part 1: Cylinders for compressed gases other than acetylene

AS	
2444	Portable fire extinguishers and fire blankets—Selection and location
2484	Fire—Glossary of terms
2484.2	Part 2: Fire protection and firefighting equipment
2700	Colour standards for general purposes
AS/NZS	
1841	Portable fire extinguishers
1841.2	Part 2: Specific requirements for water type extinguishers
1841.3	Part 3: Specific requirements for wet chemical type extinguishers
1841.4	Part 4: Specific requirements for foam type extinguishers
1841.5	Part 5: Specific requirements for powder type extinguishers
1841.6	Part 6: Specific requirements for carbon dioxide type extinguishers
1841.7	Part 7: Specific requirements for vaporizing liquid type extinguishers
1841.8	Part 8: Specific requirements for non-rechargeable type extinguishers
1850	Portable fire extinguishers—Classification, rating and performance testing
NZS	
5807	Code of practice for industrial identification by colour, wording or other coding
ASTM	
D1125	Standard Test Methods for Electrical Conductivity and Resistivity of Water
D1693	Standard Test Method for Environmental Stress-Cracking of Ethylene Plastics
	Hazardous Substances (Compressed Gases) Regulations 2001 (New Zealand)
	Hazardous Substances and Noxious Organisms Regulations 2001 (New Zealand)

1.4 DEFINITIONS

For the purpose of this Standard, the definitions of AS 2484.2 and those below apply. Typical components used in portable fire extinguishers are illustrated in Figure 1.1.

1.4.1 Anti-discharge device

A device designed to prevent accidental discharge of the extinguisher.

1.4.2 Anti-tamper seal

A device that indicates visually that an attempt has been made to actuate the extinguisher.

1.4.3 Cap

Cylinder closure.

1.4.4 Carry handle

A handle used to carry the extinguisher.

1.4.5 Compressed gas container

A gas container having a design pressure of 3.5 MPa or greater.

1.4.6 Control nozzle

A discharge nozzle incorporating a control mechanism by which the discharge can be interrupted.

1.4.7 Cylinder

Extinguishant container with attachments.



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