

Australian Standard[®]

**Portable fire extinguishers—
Foam type**

May 1982

AS 1843—OBSOLESCENT STANDARD

AS 1843 is obsolescent and is not to be used in relation to the manufacture of new extinguishers. The Standard remains available only for the purposes of replacement parts manufacture and maintenance. The SAA Certification Mark is no longer available in relation to this Standard.

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of these standards:

Associated Chambers of Manufactures of Australia
Australian Chamber of Commerce
Australian Fire Board
Australian Fire Protection Association
Department of Construction
Department of Defence
Department of Manufacturing Industry
Department of Transport
Departments of Labour and Industry
Electricity Supply Association of Australia
Fire Brigades
Insurance Council of Australia
Railways of Australia Committee
Royal Australian Institute of Architects
Telecom Australia

These standards, prepared by Committee BD/18/3, Fire Extinguishers, were approved on behalf of the Council of the Standards Association of Australia on 29 September 1975, and were published on 1 May 1976.

***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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.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.

These standards were issued in draft form for public review as DR 74118-74120.

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Foam Type Portable Fire Extinguishers

AS 1843—1976 Foam (Chemical) Type

AS 1844—1976 Foam (Gas Container) Type

AS 1845—1976 Foam (Stored Pressure) Type

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PREFACE

These standards were prepared by the Association's Committee on Fire Extinguishers as the revision and metrication of AS A32.1—1969, A32.2—1969 and Addendum No 1 (January 1974) to AS A32, which they accordingly supersede. The work of revising and metricating these standards is part of a programme covering all the standards dealing with fire extinguishers.

The design of the extinguishers is based on the pressure developed in a correctly charged extinguisher when it is operated at a temperature of 65°C and with the outlet blocked. This is also the basis for design in the latest draft British Standard for portable fire extinguishers, DC 74/13178.

The scope of each standard is now restricted to metal-bodied extinguishers, and throughout the range of standards for fire extinguishers an attempt has been made to bring comparable requirements into line with one another. The standards now refer to one size of extinguisher, i.e. the 9 litre capacity which was previously referred to as the 2 gallon capacity extinguisher; the tolerance range on this size, i.e. 2 to 2½ gallons, has been retained in the metric size which may be between 9 and 11.5 litres. The reference to the smaller size, i.e. 1 gallon, has been deleted.

Some purchasers may require evidence from manufacturers or suppliers that their product complies with the provisions of the relevant standard. The 'AS' certification trademark of the Association (see Note to marking clause) on an extinguisher is an independent assurance of such compliance. Attention is drawn to the fact that the Standards Association intends to extend the 'AS' certification mark scheme to embrace these standards; meanwhile the scheme will continue to apply to products complying with AS A32 until 30 April 1977.

Other Australian standards dealing with portable fire extinguishers are—

AS 1840 to 1842	Water Type
AS 1846	Dry Chemical Type
AS 1847	Carbon Dioxide Type
AS 1848	Halogenated Hydrocarbon Type
AS 1849	Identification Colours for Portable Fire Extinguishers
AS 1850	Classification, Fire Testing and Rating of Portable Fire Extinguishers
AS 1851	Rules for the Installation and Maintenance of Portable Fire Extinguishers and Fire Hose Reels

These standards require reference to AS 2030, SAA Gas Cylinders Code, and the cylinder specifications listed therein, and to AS K185, Colours for Specific Purposes.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard Specification
for
FOAM (CHEMICAL) TYPE PORTABLE
FIRE EXTINGUISHERS

SECTION 1. SCOPE AND DEFINITIONS

1.1 SCOPE. This specification applies to metal-bodied portable fire extinguishers of the foam type, in which the foam is expelled by pressure generated as a result of chemical reaction between solutions in the extinguisher. It refers to materials, method of manufacture and performance of the extinguisher.

NOTE: The requirements for turnover type extinguishers are retained in this specification solely to facilitate parts replacement as it is intended that these types should be phased out of manufacture not later than 1 January 1980.

1.2 DEFINITIONS. For the purpose of this specification the following definitions apply:

1.2.1 Portable fire extinguisher—a first-aid firefighting appliance which is designed to be carried and operated by hand and which in working order has a mass not greater than 23 kg.

NOTE: This limit of 23 kg may be reconsidered internationally and could be reduced to 20 kg.

1.2.2 Foam (chemical) type portable fire extinguisher—a portable fire extinguisher which relies on the chemical reaction between an acid salt solution and a sodium bicarbonate solution to expel the foam.

NOTE: The foam (chemical) type portable fire extinguisher is generally referred to in this specification as 'an extinguisher' or 'the extinguisher'.

1.2.3 Reversible (turnover) type extinguisher—an extinguisher in which the chemical reaction between an acid salt solution and a sodium bicarbonate solution is brought about by inverting the extinguisher.

1.2.4 Splash-proof type extinguisher—an extinguisher in which the acid salt solution container is held in position by a spring fitted with a release mechanism.

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