

First Copy.

AS 1846—1984  
UDC 614.845.1

# Australian Standard 1846—1984

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## PORTABLE FIRE EXTINGUISHERS DRY CHEMICAL TYPE



**STANDARDS ASSOCIATION OF AUSTRALIA**  
*Incorporated by Royal Charter*

This Australian standard was prepared by Committee FP/3, Fire Extinguishers. It was approved on behalf of the Council of the Standards Association of Australia on 8 November 1983 and published on 6 January 1984.

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The following interests are represented on Committee FP/3:

Board of Fire Commissioners of N.S.W.  
Building Owners and Managers Association of Australia  
Commonwealth Fire Board  
Department of Consumer Affairs, N.S.W.  
Department of Defence  
Department of Home Affairs and Environment  
Department of Housing and Construction  
Department of Industrial Relations, N.S.W.  
Fire Protection Industry Association of Australia  
Insurance Council of Australia  
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STANDARDS ASSOCIATION OF AUSTRALIA  
Incorporated by Royal Charter

AMENDMENT No 1  
to  
AS 1846—1984  
PORTABLE FIRE EXTINGUISHERS  
DRY CHEMICAL TYPE

REVISED TEXT

*SUMMARY:* This amendment applies to Clause 2.5.3.

Published on 3 August 1984.

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**Page 5. Clause 2.5.3.**

*Delete the existing clause and substitute:*

**2.5.3 Body Ends.** The top end of the body shall be concave to pressure.

Except where the body is of impact-extruded aluminium alloy, the bottom end of the body shall be formed as follows:

- (a) Where the bottom end is not convex to pressure, it shall be formed with a heel radius of not less than 4 times the nominal thickness of the cylinder wall.
  - (b) Where the bottom end is convex to pressure, it shall be formed with reverse curvature to provide a heel radius of not less than 4 times the nominal thickness of the cylinder wall.
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No 1  
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1984

AS 1846.

\*  
ASTAN AA33877

ASTAN AA26514

TELEX 10279      1984-10-29      1.45PM

ATTN JENNY RITCHIE  
MELB INFORMATION CENTRE

COPY OF TELEX TO MR R C TEMBY, SAFETY AND SECURITY DEPT, SANTOS  
MOOMBA

THERE IS NO AUSTRALIAN STANDARD SPECIFICALLY FOR TESTING OF FOAM  
COMPATIBLE DRY CHEMICAL POWDER. THE ONLY AUST. STD. FOR DRY  
CHEMICAL POWDER EXTINGUISHERS IS AS 1846 FOR THE DESIGN, CONSTRUCTION  
AND PERFORMANCE. THE CONSTITUTION OF A FIRE EXTINGUISHING AGENT  
IS NOT SPECIFIED, BUT RELIES ON SPECIFYING WHAT THE EXTINGUISHER  
MUST ACHIEVE, SEE AS 1850.

YOUR LOCAL EXTINGUISHER MANUFACTURER SHOULD BE ABLE TO NOMINATE  
THEIR DRY CHEMICAL AGENTS AND ANY TEST USED FOR COMPATIBILITY  
WITH FOAM.

FOR YOUR INFORMATION A FOAM COMPATIBILITY TEST FOR DRY CHEMICAL  
POWDER IS SPECIFIED IN THE FOLLOWING PUBLICATIONS:

U.S. UNDERWRITERS LABORATORY RESEARCH BULLETIN 54-JULY 1963

U.K. MINISTRY OF DEFENCE BULLETIN 1420

AUSTRALIAN DEFENCE SPECIFICATION DEF (AUST)-254, APPENDIX B

THIS ASSOCIATION HAS A COPY OF DEF(AUST)-254 IN THE SYDNEY LIBRARY  
IF YOU REQUIRE FURTHER INFORMATION ON THIS SUBJECT.

REGARDS  
KEN HELY  
EXECUTIVE OFFICER  
COMMITTEE FP/3, PORTABLE FIRE EXTINGUISHERS

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ATT: PETER ZABOROWSKI

WE RECEIVED THE FOLLOWING TELEX TODAY.

PLEASE ADVISE IF SPECIFICATION AVAILABLE FOR THE POSITIVE AND  
CONSISTENT PERFORMANCE OF FOAM COMPATIBLE DRY CHEMICAL POWDER  
AS A FIRE EXTINGUISHING AGENT.

REGARDS

R C TEMBY  
SAFETY AND SECURITY DEPT  
SANTOS MOOMBA  
(TELEX -80699)  
END MESSAGE

COULD YOU HELP US WITH ANY INFORMATION  
THANK YOU

REGARDS  
JENNY RITCHIE  
MELB INFORMATION CENTRE  
1984-10-26-1435

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ASTAN AA33877

**AUSTRALIAN STANDARD**

**PORTABLE FIRE EXTINGUISHERS  
DRY CHEMICAL TYPE**

**AS 1846—1984**

First published (as AS A137) .....	1963
Revised .....	1968
Revised and issued as AS 1846 .....	1976
Amended .....	June 1977
Amended .....	June 1978
Amended .....	September 1979
Reprinted incorporating amendments .....	1979
Reprinted .....	1983
Second edition .....	1984

**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA  
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

ISBN 0 7262 3252 1

## PREFACE

This edition of this standard was prepared by the Association's Committee on Fire Extinguishers to supersede AS 1846—1976.

This edition clarifies Clause 2.6.3. Also Appendix A has been expanded to include a wider range of Australian standards. This has resulted in the deletion of Appendix E of the previous edition. Other changes are of an editorial nature, including the updating of references in the appendices to British standards.

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 the marking clause) on an extinguisher is an independent assurance of such compliance.

Other Australian standards dealing with portable fire extinguishers are as follows:

- AS 1841 Portable Fire Extinguishers—Water (Gas Container) Type
- AS 1842 Portable Fire Extinguishers—Water (Stored Pressure) Type
- AS 1844 Portable Fire Extinguishers—Foam (Gas Container) Type
- AS 1845 Portable Fire Extinguishers—Foam (Stored Pressure) Type
- AS 1847 Carbon Dioxide Type Portable Fire Extinguishers
- AS 1848 Portable Fire Extinguishers—Halogenated Hydrocarbon Type
- AS 1849 Identification Colours for Portable Fire Extinguishers
- AS 1850 Portable Fire Extinguishers—Classification, Rating and Fire Testing
- AS 1851 Maintenance of Fire Protection Equipment  
Part 1—Portable Fire Extinguishers
- AS 2444 Portable Fire Extinguishers—Selection and Location.

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## STANDARDS ASSOCIATION OF AUSTRALIA

**Australian Standard**  
for  
**PORTABLE FIRE EXTINGUISHERS—DRY CHEMICAL TYPE**

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This standard specifies requirements for metal-bodied, rechargeable, portable fire extinguishers of the dry chemical type. It provides for two types, viz:

- (i) The gas container type.
- (ii) The stored pressure type.

The standard specifies materials, methods of manufacture and performance of the extinguisher and the compressed gas container.

**1.2 REFERENCED DOCUMENTS.** The following standards are referred to in this standard:

- AS 1849 Identification Colours for Portable Fire Extinguishers
- AS 1850 Portable Fire Extinguishers—Classification, Rating and Fire Testing
- AS K185 Colours for Specific Purposes
- AS 2030 SAA Gas Cylinders Code

Standards for materials and for welding or brazing methods are listed in Appendix A and Appendices B and D, respectively.

**1.3 DEFINITIONS.** For the purpose of this standard, the following definitions apply:

**1.3.1 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.

**1.3.2 Dry chemical type portable fire extinguisher**—a portable fire extinguisher containing dry chemical powder as the extinguishing medium.

NOTE: The dry chemical type portable fire extinguisher is generally referred to in this standard as 'an extinguisher' or 'the extinguisher'.

**1.3.3 Gas container type**—an extinguisher in which the extinguishing medium is expelled by means of a compressed gas released from a gas container.

**1.3.4 Stored pressure type**—an extinguisher in which the extinguishing medium is expelled by means of dry inert gas or dry air stored with the extinguishing medium under pressure.

(as substituted by)  
AMD 1 : 1984.

- \* 2.5.3 BODY ENDS:— The top end of the body shall be concave to pressure. Except where the body is of impact-extruded aluminium alloy, the bottom end of the body shall be formed as follows:
- a) where the bottom end is not convex to pressure it shall be formed with a heel radius of less than 4 times the nominal thickness of the cylinder wall.
  - b) where the bottom end is convex to pressure shall be formed with reverse curvature to pressure a heel radius of not less than 4 times the nominal thickness of the cylinder wall.