

Advice Leaflet 38 Portable Fire Fighting Equipment

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INTRODUCTION

To ensure small fires do not grow into large fires, suitable fire fighting equipment should be readily available at all times. On most occasions the equipment available will be of the hand held portable type but in some circumstances fixed or automatic fire fighting equipment may be provided.

GENERAL PRINCIPLES

1. Fire fighting equipment should be of a suitable type.
2. The risk involved.

There are four main types of fire risk, each requiring the use of specific extinguishing agents. British Standard 4547 classifies these risks according to material involved and extinguishing media as follows:

	Class Materials Involved	Extinguishing Media
A	Fire involving wood, paper, fabrics or similar, combustible materials requiring cooling or quenching	9 litre water extinguisher
B	Fire involving flammable liquids liquefiable solids (petrol, oils, greases, fat, etc)	9 litre foam extinguisher, CO ₂ (size according to risk) dry powder extinguisher (size according to risk)
C	Fire involving gases or liquefied gases in the form of a jet or spray (methane, butane, propane, etc, in cylinders)	Water spray to cool cylinder, foam to extinguish any fire when valve has been closed
D	Metals	Dry powder extinguisher (size according to risk) dry sand (quantity according to risk)
E	Electrical appliance fires (TV sets, electric blankets etc)	Power supply must be isolated and use extinguishing media that does not conduct electricity such as CO ₂ or dry powder

Fire extinguishers should conform to British Standard 5423 or BS EN 1869: 1997 and be maintained as outlined in British Standard 5306: Part 3. Schemes for ensuring the conformity with these Standards have been produced by the British Standards Institution and adopted by British Approvals for Fire Equipment (BAFE), and conforming equipment and services are recognised by that organisation's mark of approval.

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FIRE BLANKETS

Fire blankets are classified in British Standard 7944 and are described as follows:

- a) Light Duty - These are suitable for dealing with small fires in containers of cooking fat or oils and fires in clothing.
- b) Heavy Duty - These are for industrial use where there is a need for the blanket to resist penetration by molten materials.

CODES AND STANDARDS

To determine what type of fire extinguishing equipment is appropriate for your circumstances, information is issued in the form of code/guides. The attached bibliography lists some of the codes/guides available. Further advice is available from your local fire station.

FIRE EXTINGUISHER SALES AND SERVICING

West Yorkshire Fire & Rescue Service carries out inspections of premises and does require, where necessary, that businesses install appropriate firefighting equipment. It does not sell or service fire extinguishers, nor does it recommend particular brands or makes. It is recommended that service contracts should only be made with companies, which are members of a reputable trade organisation such as FETA (Fire Extinguishing Trade Association).

MISLEADING INFORMATION

A recent Court case has highlighted a possible problem with fire extinguisher suppliers or servicing contractors who may wrongly persuade customers that their existing extinguishers have to be replaced because of changes to British Standards. Anyone who has grounds for believing they are being deliberately misled to persuade them to buy extinguishers should contact the Trading Standards office, at the following address:

Trading Standards
P O Box 5
Nepshaw Lane
Morley
Leeds
LS27 0QP

Tel: 0113 2530241
Fax: 0113 253 0311
e-mail: info@wyjs.org.uk

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CURRENT STANDARDS

The following British Standards currently apply to portable fire extinguishers: -

- BS 5306 Fire extinguishing installations and equipment on premises - Part 3 Code of practice for selection, installation and maintenance of portable fire extinguishers.
- BS 6643 Recharging fire extinguishers - Part 1 Specification for procedures and materials.

British Standards for fire extinguishers are being changed to bring them in line with European standards. Extinguishers manufactured and sold after 1 January 1997 must meet the following new standards.

- BS EN 3 (parts 1-6) Portable Fire Extinguishers.
- BS 7863: 1996 Recommendations for colour coding to indicate the extinguishing media contained in portable fire extinguishers.

The main change is that all extinguishers are predominantly red in colour. The former practice of colouring the whole of the extinguisher body to indicate its contents, eg blue for a dry powder type, no longer complies. Instead, manufacturers make extinguishers with up to 5% of the red body coloured differently to show the contents. The differently coloured area is on the front of the extinguisher, next to or on the instruction label. The changes only apply to new extinguishers. Existing extinguishers can continue to be used until the end of their useful life.

Future Standards

A draft European Standard (EN 12367) now under development will deal with extinguisher installation and maintenance. The new Standard will probably recommend that some older types of extinguishers should no longer be maintained and they will therefore need to be replaced.

These will most likely include the following types of extinguishers:

- Soda acid water type
- Chemical foam (ie those other than stored pressure or gas cartridge type)
- Riveted body extinguishers
- Those activated by turning them over
- Those activated by turning them over and striking them against the ground
- Disposable bodied extinguishers that are either out of date or have no date shown
- Extinguishers for which spare parts or extinguishant recharges are no longer available.

This change will not take place until the European Standard has been formally implemented as a British Standard. Until then the recommendations for maintenance in the existing BS5306: Part 3 still apply. That Standard currently recommends that extinguishers type a and b above should be replaced.

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IDENTIFYING EXTINGUISHER LOCATIONS

The Health and Safety (Safety Signs and Signals) Regulations 1996 came into force with effect from 1 April 1996.

The Regulations place a duty on employers to ensure that safety signs are provided in circumstances where the risk to the health and safety of employees (identified through the risk assessment requirement contained in the Management of Health and Safety at Work Regulations 1999) cannot be entirely 'engineered' or 'managed' out of the workplace.

- Whether fire equipment requires to be identified by means of a sign will depend on the physical environment in which the above mentioned risk assessment takes place. In other words the features of the workplace, the activities carried on there and any other circumstances deemed to be pertinent must be taken into account.
- In a building where the internal layout is such that the extinguishers provided are clearly visible to employees there should not be a requirement to further indicate the position of the fire fighting equipment.
- In more complex building layouts, for example where it is not always possible to ensure that fire extinguishers are in the line of sight of employees, (e. g. due to the nature of the work process or where hose reels are installed within cabinets or where fire fighting equipment is contained within recessed 'fire points'), then it would be pertinent to provide signs indicating the position of the equipment complete with directional arrows where applicable.
- When the location fire fighting equipment provided is required to be indicated, it should be done by either using a suitable signboard or by colouring the background behind the equipment red. Where the equipment itself is predominantly red it may not be necessary to colour the background.
- Any required signs and notices must comply with requirements of the Regulations. The standard detailed in Parts 1 to 3 of BS 5499 "Fire safety signs, notices and graphic symbols" are accepted as satisfying the requirements.

TRAINING

Whether or not staff should tackle an outbreak of fire as a part of their fire procedure is a matter of company policy. This should be made clear on any fire procedure notices. If staff are instructed to attack a fire, they must be competent to use the equipment provided. Although first aid fire fighting equipment is usually marked with instructions for use, it is wise to also provide competent instruction. Such instruction may be provided.

- By the firm which services your fire fighting equipment, or
- By the West Yorkshire Fire & Rescue Service, International Training Centre, Training Development Officers, telephone 01274 655867, or
- Other commercial training providers.

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BIBLIOGRAPHY

Detailed guidance on the various standards listed in this public advice note may be obtained from the following bibliography: -

Title	Available From
Portable Fire Extinguishers ref PE4	FPA
BS 5306: 2003 Part 3 Code of Practice and Installation of Portable Fire Appliances	BSI
BS 5588: Fire Precautions in the Design and Construction of Buildings 1990: Part I Code of Practice for Residential Buildings 1985: Part II: Code of Practice for shops, offices, industrial, storage and other similar buildings	BSI
BS 6165: 1981: Specification for Small Disposable Fire Extinguishers of the Aerosol Type	BSI
BS 7944: 1999 Type 1 heavy duty fire blankets and type 2 heavy duty heat protective blankets	BSI
BS 6643: Recharging Fire Extinguishers	BSI
BS 7863: Recommendations for colour coding to indicate the extinguishing media contained in portable fire extinguishers	BSI
BS EN 1869: 1997 Fire Blankets	BSI
BS EN 3 Parts 1-6 Portable Fire Extinguishers	BSI
Fire Safety Risk Assessment Guides – a series of guides to accompany the Regulatory Reform (Fire Safety) Order 2005	TSO
Fire Extinguishers for the Home	Fire Kills Web Site
West Yorkshire Fire & Rescue Service, Fire Safety, Public Advice Note - "Signs and Notices for Fire Safety"	Your local Fire Station

The above publications are current at the time of preparation of this Public Advice Note.

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The publications can be obtained from the addresses below:

SO	<p>The Stationery Office Ltd PO BOX 29 Norwich NR3 1GN</p> <p>Or</p> <p>Blackwells 21 Blenheim Terrace Leeds LS2 9HJ</p>	<p>Tel: 0870 600 5522 Fax: 0870 600 5533 e-mail: customer.services@tso.co.uk web: www.tso.co.uk/bookshop/bookstore.asp</p> <p>Tel: 0113 245 2623 Fax: 0113 242 5641 e-mail: osleeds@blackwellsbookshops.co.uk</p> <p>Opening hours: Mon–Sat: 09.00 – 17.30</p>
BSI	<p>British Standards Institution (Sales) 389 Chiswick High Road LONDON W44 AR</p>	<p>Tel: 0208 996 7003 e-mail: cservices@bsi-global.com web: bsonline.techindex.co.uk</p>
FPA	<p>Fire Protection Association 2 Paris Garden London SE1 8ND</p>	<p>Tel: 020 7902 5300 Fax: 020 7902 5301 e-mail: fpa@thefpa.co.uk</p>
FireKills		<p>http://www.firekills.gov.uk</p>

A wide range of material relating to fire extinguishing equipment is available from the Fire Protection Association.