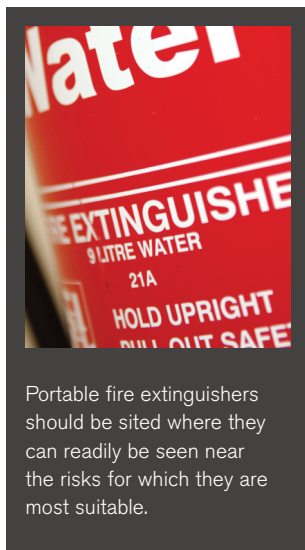


# Provision and use of firefighting equipment - Guidance Notes

The Regulatory Reform (Fire Safety) Order 2005 requires that in all premises a responsible person ensures the provision of suitable fire safety measures.



Portable fire extinguishers should be sited where they can readily be seen near the risks for which they are most suitable.

The responsible person must ensure that a fire risk assessment is carried out, paying particular attention to those at special risk such as disabled people, those with special needs and children.

Every church needs some firefighting equipment.

The form and extent of the equipment required can vary from a small number of portable fire extinguishers to hose reels, fire blankets and an array of fire extinguishers in the largest churches and cathedrals. This guidance note describes the more widely used types of extinguishing equipment and their application.

*Note: the minimum for any church is two portable fire extinguishers. A water one for organic materials such as wood and paper and a carbon dioxide one for electrical fires.*

## Fire extinguishing equipment

The chart on the next page indicates in general terms the type and number of fire extinguishing appliances that may be required for your church, however this must be determined from your own fire risk assessment of the building. For further details of the various types of extinguishers and their suitability for different applications please refer to 'Selecting the appropriate extinguisher'.

## Purchasing recommendations

It is recommended that firefighting equipment should be purchased from firms that are members of the Fire Industry Association (FIA), British Approvals for Fire Equipment (BAFE) or Independent Fire

Engineering and Distributors Association (IFEDA). Such firms can offer expert advice, maintenance facilities and appliances that have been approved by the Loss Prevention Council (LPC). The LPC publishes lists of extinguishers that have been independently tested in accordance with BS EN3 and that are manufactured in accordance with a satisfactory quality assurance scheme.

Details of suppliers of approved extinguishers can be obtained from:

- Fire Industry Association  
Tel: 020 3166 5002  
[www.fia.uk.com](http://www.fia.uk.com)
- British Approvals for Fire Equipment  
Tel: 01608 653 350  
[www.bafe.org.uk](http://www.bafe.org.uk)
- Independent Fire Engineering and Distributors Association  
Tel: 0844 225 1800  
[www.ifeda.org](http://www.ifeda.org)

## Fire extinguisher colours

For new extinguishers only 5% of the body surface may be coloured to indicate the type of extinguisher.

<b>Water</b>	Red
<b>Carbon Dioxide</b>	Black
<b>Dry powder</b>	Blue
<b>Foam</b>	Cream

Old extinguishers sold before the end of 1996 are still acceptable and do not have to be repaired or replaced until they have become unserviceable.

<b>Location</b>	<b>Type of extinguisher</b>
General areas	
Very small church	1 water
Small church	2 water
Medium size church	3 water
Large church	4 water
Organ	1 carbon dioxide
Boiler house	
Solid fuel fired boiler	1 water
Gas fired boiler	1 AFFF
Oil fired boiler	
– Where electricity can be switched off	1 foam or AFFF
– Where not	1 dry powder
Tower ringing room	
	1 water
	1 carbon dioxide
Kitchens	
	1 fire blanket plus 1 foam or wet chemical
Electrical equipment	
	1 carbon dioxide

### **Maintenance**

All firefighting equipment should be inspected and maintained professionally at least annually by an FIA, BAFE or IFEDA registered firm.

### **Siting of fire extinguishers**

Fire extinguishers should be sited in reasonably prominent positions close to where they will be used and not hidden behind curtains or locked away in the vestry. Preferred locations are near to exits, wall mounted with the carrying handle mounted 1 metre above floor level. For the organ a carbon dioxide extinguisher, sited fairly close to the instrument, is recommended.

### **Training**

The incumbent, churchwardens, members of the PCC, vergers and voluntary workers should learn how the different types of extinguisher operate and whenever possible the supplier or local fire brigade should be asked to arrange a practical training session.

### **Kitchens**

Before using a fire extinguisher on a fat fire, electricity or gas should be turned off to remove the heat, and a fire blanket used first to cover the burning object.

### **Boiler rooms**

The gas supply must be turned off before attempting to tackle any secondary fire.

### **Further advice**

Specific advice about all matters relating to fire prevention can be obtained from the Fire Prevention Officer of the local fire brigade.

## Selecting the appropriate fire extinguisher

Type	Advantages	Disadvantages
<p><b>Water</b></p> <p>These use 'gas' or 'stored' pressure to expel the water and the minimum appropriate capacity is 9 litres. Smaller extinguishers are also available, which by using an additive have an equivalent rating of 9 litres.</p>	<p>Water is the most effective agent for extinguishing fires in organic materials such as wood, paper or textiles. Water type extinguishers are the easiest for inexperienced people to use effectively.</p>	<p>Water must never be used in an attempt to extinguish fires involving petrol, paraffin, any oils or hot fat. It is both dangerous and ineffective. There is a danger of electric shock to the user if a stream of water is directed on to apparatus containing live electrical circuits so they are not recommended for use, for example, in or near photocopiers, computers or other electrical equipment. Extinguishers using a soda-acid reaction to expel the water should now be replaced with extinguishers meeting current standards.</p>
<p><b>Water mist</b></p> <p>The extinguisher's nozzle disperses microscopic "dry" water mist particles to suppress fires and extinguish burning materials. The mist cools the fire and reduces the oxygen content of the fire.</p>	<p>Can be used on most types of fires e.g. wood, paper, textiles, flammable liquids and fat fires. Less mess to clean up after a fire. A 6-litre water mist extinguisher is as powerful as a standard 9-litre water extinguisher.</p>	<p>None</p>
<p><b>Hydrospray</b></p> <p>These discharge water in the form of a fine mist. The minimum appropriate capacity is 6 litres, which is equivalent to an ordinary 9-litre water extinguisher.</p>	<p>They are smaller, lighter and hence easier to use than a standard 9-litre water extinguisher.</p>	<p>Their use is restricted to the same materials as water, but if accidentally discharged onto electrics there is a much-reduced risk of electric shock.</p>
<p><b>Carbon Dioxide (CO<sub>2</sub>)</b></p> <p>To match the effectiveness of one 9-litre water type, two CO<sub>2</sub> extinguishers, each having a capacity of 4.5 kilograms, are needed.</p>	<p>Suitable where electricity is involved. Leaves no residue so will not cause additional damage to electrical apparatus.</p>	<p>Much less efficient than water against fires in organic materials.</p>
<p><b>Dry Powder</b></p> <p>To match the effectiveness of one 9-litre water type, one 4.5-kilogram dry powder extinguisher is needed.</p>	<p>Useful against outdoor fires involving petrol, paraffin, oil, etc. Within a church, dry powder extinguishers should only be situated in boiler houses when determined by your fire risk assessment and adequate ventilation is provided.</p>	<p>BS5306 Part 8 2012 (Fire installations and Equipment on Premises – Selections and Positioning of Portable Fire Extinguishers – Code of Practice) advises that dry powder extinguishers should generally not be specified for indoor use unless mitigated by a fire risk assessment.</p> <p>This is due to a potential to cause respiratory problems/harm through the inhalation of powder in a confined space without ventilation and anticipated concerns during an evacuation of a building.</p> <p>In addition, dry powder extinguishers contain a mixture of abrasive chemicals with the potential to cause considerable damage to the building fabric and contents due to its corrosive nature where moisture is present.</p>
<p><b>Foam (Aspirating)</b></p> <p>A 9-litre foam is equivalent to a 9-litre water type.</p>	<p>The most efficient extinguisher for dealing with fires involving oil or other flammable liquid.</p>	<p>High possibility of an electric shock if directed on to electrical equipment. Use only on oil-fired boilers if the electricity supply can be turned off quickly and easily. Training in the correct use of these extinguishers on flammable liquid fires is vital.</p>

Type	Advantages	Disadvantages
<p><b>Foam (AFFF Spray)</b> A 9-litre foam is equivalent to a 9-litre water type; smaller capacity extinguishers may be used, but the numbers should be increased to equate to the number of 9-litre extinguishers required.</p>	<p>A relatively new development for extinguishers, designed as a general-purpose replacement for Halon. Suitable for use on both flammable liquids e.g. oil in boiler houses and organic materials such as wood, paper or textiles.</p>	<p>Design minimises risk of electric shock if used on electrics. Application to flammable liquids is easier than the aspirating foam extinguisher, but will only deal with smaller fires.</p>
<p><b>Wet Chemical</b> A type of extinguisher specifically designed for fires involving cooking oil.</p>	<p>More effective than foam, CO<sub>2</sub> or dry powder for cooking oil fires. The most effective extinguisher for deep fat fryers. It can also be used on wood, paper and textiles.</p>	<p>Should not be used on electrical fires.</p>

### Number of fire extinguishers

The number of extinguishers required will vary according to particular circumstances but in general it is considered that there should be one 9-litre water extinguisher or equivalent for each 200m<sup>2</sup> of floor area or part thereof, with at least two per floor.

Additional extinguishers should be provided in boiler houses or kitchens and in any areas above ground floor level where activities take place (organ lofts, meeting rooms and ringing chambers, etc.).

### P50 Fire extinguishers

The P50 low-maintenance extinguisher is the latest development in the UK fire extinguisher industry. These extinguishers are certified to EN3 with a 20 year life, requiring no discharge testing or re-fills for 10 years.

The P50 is designed to remove corrosion and reduce maintenance because it only requires a simple visual inspection and checking of the gauges.

If these extinguishers are selected, you must maintain written records of the extinguisher to include purchase date, inspection dates, condition details and any repairs undertaken.

### Fire alarms

Early detection and warning of fire is vital if damage is to be limited and the installation of an automatic fire detection system should be considered. Professional advice should be sought and Ecclesiastical consulted before proceeding along this route. Any fire alarm system should comply with BS 5839 Part 1: P1/L1. If at all possible it should also include remote signalling to an alarm monitoring station (conforming to BS 5979). It is also recommended that the system is designed, installed, commissioned and maintained by an LPS 1014 Certificated Fire Detection and Alarm System firm or an installer accredited under the British Approvals for Fire Equipment (BAFE) adopted SP 203 scheme. Further information is given in the section 'Installation of Fire Alarms'.

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