Fire extinguisher guide

Types of Fire Extinguishers

Along with ensuring you have the right types of fire extinguisher, you will also need to make sure that you select the right sizes and weights.

The various types of fire extinguisher put out fires started with different types of fuel – these are called 'classes' of fire. The fire risk from the different classes of fire in your business premises will determine which fire extinguisher types you need.

There are 6 main types of fire extinguisher, plus different variants of Water and Dry Powder extinguishers explained in more detail later in the guide.

- **Water**
- **Foam**
- **Dry Powder**
- **Carbon Dioxide ('CO2')**
- **Wet Chemical**
- **Lithium Battery (Specialist)**

There is no one extinguisher type which works on all classes of fire.

Below is a summary of the classes of fire, and a quick reference chart showing which types of extinguisher should be used on each.

We then provide a detailed explanation of each type of fire extinguisher.

Fire extinguisher colours

There are 6 fire extinguisher label colours: Red, Cream, Black, Blue, Yellow and *Green.
Each colour represents a different type of extinguisher, used on different types of fires.

The fire extinguisher colours changed in 1997 to meet British and European Standard BS EN3.
All modern fire extinguishers have a red (or chrome) body, with the identifying colour displayed in a wide band at the top of the extinguisher – as in the image below:

Red: Water | Cream: Foam | Black: C02 | Blue: Powder | Yellow: Wet Chemical | *Green: Lithium-ion Battery Fire (LFX/ Lith-Ex)

** The British Standards Institution has published BS ISO 3941:2026 – Classification of Fires. This introduces Class L for lithium-ion battery fires. However, this class has not yet been incorporated in the BS EN 2 / EN 3 extinguisher fire rating system. (April 2026)*

Why did the fire extinguisher colours change?

Up until 1997, the body of the extinguisher was usually made up of the entire distinguishing fire extinguisher colour. For example, Co2 extinguishers would have been completely black, Foam extinguishers would have been completely cream, and powder extinguishers would have been completely blue.

The standard fire extinguisher colour was changed to 'signal red' for 2 main reasons.

Firstly, red is the colour associated with both danger and fire and so there is an obvious association with fire extinguishers. Secondly, red is the colour most easy to see, especially in a darker environment, such as a smoke-filled room.

The only exception to the 'red' rule, is chrome extinguishers. Whilst these do not strictly conform to the guidelines, all chrome extinguishers in the UK are ISO 9001 quality supervised and tested against British Standard BS EN3.

We recommend using larger extinguisher ID signs with chrome extinguishers, to make them more visible.

See our separate Fire Safety Signage Guide

The different classes of fire

The different fire extinguisher colours tell you which classes of fire an extinguisher can be used on. Fire is a form of dry heat, but it comes in different forms. There are seven classes of fire: A, B, C, D, 'Electrical', F and now L*.

Class A fires – combustible materials:
– These are fires caused by flammable solids, such as wood, paper, and fabric

Class B fires – flammable liquids:
– These are fires caused by flammable liquids, like petrol, paint, or white spirits

Class C fires – flammable gases:
– These are fires caused by flammable gases, such as hydrogen or methane

Class D fires – combustible metals:
– These are fires caused by metals and chemicals such as magnesium, or potassium

Electrical hazards – electrical equipment:
– These are fires caused by electrical items, like heaters. Once the electrical item has been removed, the fire changes class, which means you can use a different colour fire extinguisher if necessary

Class F fires – cooking oils:
– Typically these are chip pan fires

Class L Fires* – Lithium-Ion Battery Fires
– Class L fires involve lithium-ion cells and battery packs used in rechargeable devices and energy storage systems.

Which extinguisher is used for each class of fire? – quick guide

Type / Fire Extinguishers	CLASS A **Combustible materials** (e.g. paper & wood)	CLASS B **Flammable liquids** (e.g. paint & petrol)	CLASS C **Flammable gases** (e.g. butane and methane)	CLASS D **Flammable metals** (e.g. lithium & potassium)	ELECTRICAL **Electrical equipment** (e.g. computers & generators)	CLASS F **Deep fat fryers** (e.g. chip pans)	CLASS L* **Lithium-Ion battery** (e.g. Latops, Phones, e-Scooter)	Comments
Water	✓	✗	✗	✗	✗	✗	✗	Do not use on liquid or electric
Foam	✓	✓	✗	✗	✗	✗	✗	Not suited to domestic use
Dry Powder	✓	✓	✓	✓	✓	✗	✗	Can be used safely up to 1000 volts
C02	✗	✓	✗	✗	✓	✗	✗	Safe on both high and low voltage
Wet Chemical	✓	✗	✗	✗	✗	✓	✗	Use on extremely high temperatures
Lithium Battery (Specialist)	✓	✗	✗	✗	✓	✗	✓	Use on thermal runaway devices

Different types of fire extinguisher – a detailed guide

Water

Water fire extinguishers are the most common extinguisher type for class A fire risk. Most premises will require either water or foam extinguishers.

Extinguisher label colour: Bright Red

Use for: – Organic materials such as:

- Paper and cardboard
- Fabrics and textiles
- Wood and coal

Do not use for:

- Fires involving electrical equipment
- Kitchen fires
- Flammable gas and liquids

How water extinguishers work:

The water has a cooling effect on the fuel, causing it to burn much more slowly until the flames are eventually extinguished.

Types of premises/business who may need water extinguishers:

– Buildings constructed of wood or other organic materials
– Premises where there are organic materials to be found such as:

- Offices
- Schools
- Hospitals
- Residential properties
- Warehouses

In fact, most buildings need either water or foam extinguishers.

Where to locate water extinguishers:
– By the exits on a floor where a Class A fire risk has been identified

Water spray extinguishers – what's the difference?:

Water spray extinguishers are equipped with a spray nozzle, rather than a jet nozzle, meaning a greater surface area can be covered more quickly and the fire put out more rapidly.

Water mist extinguishers – what's the difference?:

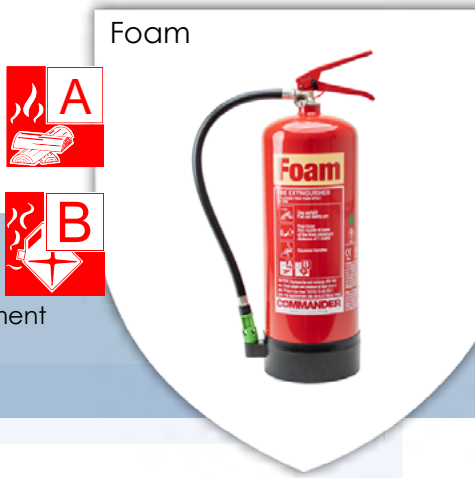
Water mist extinguishers have a different type of nozzle again which releases microscopic water particles.

These particles 'suffocate' the fire and also create a wall of mist between the fire and the person using the extinguisher, reducing the feeling of heat.

Foam extinguishers

Foam fire extinguishers are most common type of extinguisher for Class B fires, but also work on Class A fires as they are water-based.

Extinguisher label colour: Cream



Use for: – Organic materials such as:

- Paper and cardboard
- Fabrics and textiles
- Wood and coal
- Flammable liquids

Do not use for:

- Kitchen fires
- Fires involving electrical equipment
- Flammable metals

How Foam extinguishers work:

As with water extinguishers, foam extinguishers have a cooling effect on the fuel. On burning liquids, the foaming agent creates a barrier between the flame and the fuel, extinguishing the fire.

Types of premises/business who may need Foam extinguishers:

– Buildings constructed of wood or other organic materials
– Premises where there are organic materials to be found such as:

- Offices
- Schools
- Hospitals
- Residential properties
- Warehouses

– Buildings where flammable liquids are stored
In fact most buildings need either water or foam extinguishers

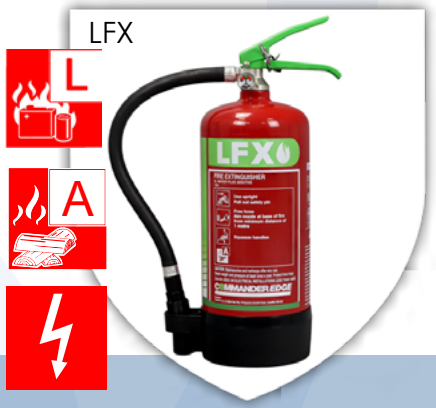
Where to locate Foam extinguishers:
– By the exits on a floor where a Class A or Class B fire risk has been identified

Lithium-Ion battery fire extinguishers*

Specially designed for Lithium-ion battery fires within portable electronic devices. Ideal for fires involving mobile phones, tablets, laptops, drones, toys, power tools, electric scooters and e-bikes.

Extinguisher label colour: Green

Can also be used on class A and electrical hazards.



Use for: – Battery powered equipment such as:

- Mobile phones, laptops, e-scooters, e-bikes

+ Paper and cardboard
+ Electrical hazards

Do not use for:

- Flammable liquids or gases
- Flammable metals
- Kitchen fires

LFX
LFX extinguishers are water-based, meaning they are Fluorine-free, whilst discharging as a foam which quickly absorbs the heat. As a result, the chain reaction which leads to thermal runaway breaks down, cooling down the battery and preventing other cells from overheating.

Suitable for homes, offices, workshops and repair stores with cordless tools, mobile phones, laptops, electric toothbrushes, toys, etc.

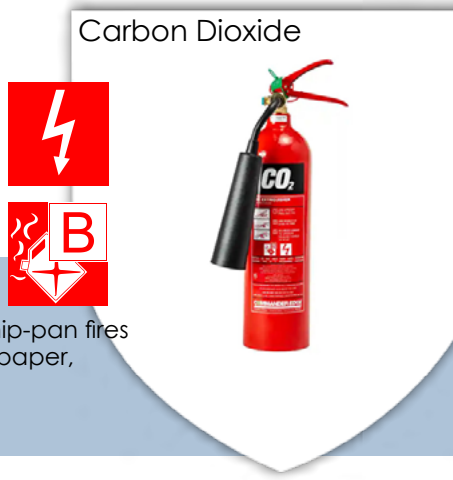
Lith-Ex
Using a non-toxic and revolutionary extinguishing agent, AVD (Aqueous Vermiculite Dispersion) is deployed as a mist which then creates a film over the surface which instantly dries to create an oxygen barrier, cools and prevents re-ignition. The Lith-Ex fire extinguisher is the only one which is safe to use on a lithium-ion battery and works even where a powder can't.

Perfect for vehicles, aviation, marine, medical facilities and any premises with items which have lithium-ion batteries.

Carbon Dioxide (CO2) Extinguishers

CO2 fire extinguishers are predominantly used for electrical fire risks and are usually the main extinguisher type provided in computer server rooms. They also put out Class B fires (flammable liquids, such as paint and petroleum).

Extinguisher Label Colour: Black



Use for:
- Flammable liquids, like paint and petrol
- Electrical hazards - fires involving electrical equipment

Do not use for:
- Kitchen fires – especially chip-pan fires
- Combustible materials like paper, wood or textiles
- Flammable metals

How CO2 extinguishers work:

CO2 extinguishers suffocate fires by displacing the oxygen the fire needs to burn.

Types of premises/business who may need foam extinguishers:

– Premises with electrical equipment, such as:
- Offices
- Kitchens
- Construction sites
- Server rooms

Where to locate CO2 extinguishers:
– Place near to the source of an electrical hazard and/or near the fire exits with a Class A extinguisher where electrical hazards are present.

Dry powder extinguishers

Standard dry powder fire extinguishers are also called 'ABC' extinguishers because they tackle class A, B and C fires, however, they are not recommended for use in enclosed spaces. This is because the powder can reduce visibility, be easily inhaled, and also the residue is very difficult to clean up after, causing damage to electrical equipment.

ABC powder extinguishers can also be used on some electrical fires. **Specialist dry powder** extinguishers are used for flammable metals.

Extinguisher Label Colour: Blue

Use for: – Organic materials such as:
- Paper and cardboard
- Fabrics and textiles
- Wood and coal

+ Flammable liquids, like paint and petrol
+ Flammable gases, like liquid petroleum gas (LPG) and acetylene
+ Fires involving electrical equipment up to 1000v

Do not use for:
- Fires involving cooking oil
- Fires involving electrical equipment over 1000v
- or in enclosed spaces, such as offices, hosptals, schools or residential properties where evacuation can be hindered.

How dry powder extinguishers work:

Dry powder extinguishers smother fires by forming a barrier between the fuel and the source of oxygen.

Types of premises/business who may need Dry Powder extinguishers:

- Businesses using flammable gases for chemical processes
- Premises where welding and flame cutting takes place
- Garage forecourts
- Liquid petroleum gas (LPG) dispensing plants
- Premises with large, commercial boiler rooms

Where to locate Dry Powder extinguishers:
– Place dry powder extinguishers near to the source of the fire risk.

Specialist Dry Powder extinguishers – what's the difference?:
Specialist dry powder extinguishers work in the same way as standard dry powder extinguishers but are for use with flammable metals only. There are 2 types of specialist dry powder extinguishers – 'L2' which only tackles lithium fires, and 'M28', for all other flammable metal fires.

Wet Chemical Extinguishers

Wet chemical fire extinguishers are designed for use on Class F fires. What are Class F fires? In a nutshell, these involve cooking oils and fats. They can also be used on Class A fires although it is more common to have a foam or water extinguisher for this type of fire risk.

Extinguisher Label Colour: Yellow

Use for:
– Cooking oil/fat fires
– Organic materials such as:
■ Paper and cardboard
■ Fabrics and textiles
■ Wood and coal

Do not use for:
■ Flammable liquid or gas firesl
■ Electrical fires
■ Flammable metals

How wet chemical extinguishers work:

Wet chemical extinguishers create a layer of foam on the surface of the burning oil or fat, preventing oxygen from fuelling the fire any further. The spray also has a cooling effect.

Types of premises/business who may need wet chemical extinguishers:

■ Premises with commercial kitchens

Where to locate wet chemical extinguishers:
– Place near to the source of the fire risk.

Fire extinguishers - Options and accessories

P50 Fire extinguishers

P50 fire extinguishers are low maintenance appliances that require a ten-year refill/service and have a twenty-year life cycle.

They are fully compliant with BS EN3 part 7, however, do not currently meet with British Standard BS 5306 parts 3 or 8. They are also not currently recognised by BAFE within their accreditation scheme BAFE SP101

Available as Powder, Water Mist, Foam and Class F.

More information

Trolley Units

Wheeled trolley units are designed to fight fires in many different environments including warehouses, petroleum sites, research sites and factories. Easy to manoeuvre, the wheeled trolley unit can be operated by one person.

Available in ABC Powder, C02, Foam and Lith-Ex variants.

Stainless steel extinguishers

Polished stainless steel extinguishers are available in most extinguisher types such as C02, Water, Foam and Dry Powder. In addition to the aesthetics and design benefits over a traditional red extinguisher, they offer superior anti-corrosion resistance and durability benefits.

Mobile fire points

For environments like forecourts and construction sites, it isn't always possible or practical to have fire extinguishers fixed to walls or limited to dedicated areas. This is where fire extinguisher trolleys and mobile fire points can help. They can have a manual hand bell and first aid kit with signage and accomodate two or three extinguisher types.

Extinguisher stands and signage

Available in single or double sizes, they are made from a single piece of durable plastic or metal wth a chrome finish, intended to provide a highly-visible location to store your extinguishers. Designed for indoor or outdoor use, they feature a high-grip finish for easy handling and a gripped base for stability. These tough stands easily stack together for storage and transportation with their minimalist and mostly flat design.

All installed extinguishers should be accompanied by a visible identification and usage sign. Fire Extinguisher Signs are crucial in an emergency.

See our separate Signage Guide

Fire extinguisher cabinets

Prevent misuse, vandalism, and damage from adverse weather as well as for use on vehicles. Available in single or double sizes.

Fire blankets

A fire blanket is used to smother and extinguish small fires. By covering a small fire with your fire blanket, you can stop oxygen from feeding the fire – fires need heat, fuel and oxygen in order to burn and grow. Cutting off the oxygen supply with a fire blanket can be an easy way to stop a small fire from spreading. Fire blankets are typically used in food preparation areas and are most suitable for cooking fat and oil fires (class F), flammable liquids fires (class B) and fire fuelled by solid materials such as plastic, wood, paper, textiles and furniture (class A). For electrical fires and combustible metal fires (class D) do not use a fire blanket: instead, use a CO2 or dry powder extinguisher respectively.

Fire buckets

Fire buckets are an effective way to extinguish small, contained fires and contain spills of flammable liquids in the UK. They are typically filled with sand or water and are easy to use. They are a valuable tool for fire safety due to their simplicity (easy to refill), effectiveness, and affordability.

Fire Extinguisher Regulations

Fire extinguisher legislation in the UK can feel a little complicated for some people. That's why we wrote this simplified guide to the UK's current laws and available guidance on fire extinguishers.

As with all fire safety legislation in England and Wales, UK Fire Extinguisher regulations form part of 'The Regulatory Reform (Fire Safety) Order 2005', also known as the 'RRO'.

All premises used for non-domestic purposes, with a few minor exceptions, come under this order.

You can read the The Regulatory Reform (Fire Safety) Order 2005 here

Whilst the legislation has been responsible for dramatically reducing commercial fires in the UK, it can be difficult to interpret if you're not a fire safety professional – which is why we have answered some of the most frequently asked questions below as clearly and simply as possible.

Relevant British Standards

BS EN 3: The core standard for construction, testing, and approval of portable fire extinguishers. Ensures high quality and reliable fire fighting capability.

BS 5306-3:2017: Covers the commissioning and maintenance of portable fire extinguishers to ensure they remain safe and operational.

BS 5306-8:2023: Provides guidance on the selection and installation of portable fire extinguishers, including travel distance requirements.

BS 6165: Specifies requirements for small, disposable aerosol-type fire extinguishers

Extinguisher commissioning and servicing

Under the Regulatory Reform (Fire Safety) Order 2005 (RRO), all new fire extinguishers require a 'Commissioning to Service' as documented in BS 5306-3: 2017. This should be done by a qualified BAFE engineer.

Servicing should be carried out annually by a qualified BAFE registered engineer. Engineers will examine the overall condition of the extinguishers if the labelling is the pressure and weight, expiry dates and the pin and seal are adequate. A report will then be issued once the service has taken place to determine if they need replacement or not.

Our Fire Extinguisher Services

- Fire Extinguisher Sales
- Fire Extinguisher Servicing
- Fire Extinguisher Refills
- Fire Extinguisher Hire
- Fire Extinguisher Accessories
- Fire Safety Equipment
- 24 Hour Call Outs

BAFE FIRE SAFETY REGISTER REGISTERED ORGANISATION ID: 300455

BAFE Registered

BAFE SP101 Service/Maintenance of Portable Fire Extinguishers: Third-party certificated by BSI.

BAFE Fire Safety Register – The trusted independent register of quality fire safety organisations for the UK since 1984

Protecting People and Property Since 1985

Frequently asked questions

1. What is the minimum number of extinguishers I legally have to have?
We are often asked 'How many fire extinguishers are required in a business premises?'

UK fire extinguisher standards recommend that you should have a minimum of two 'Class A' extinguishers on every storey of the building. Class A fire extinguishers are those which put out wood or paper fires, also known as 'carbinaceous' fires. Class A fire extinguishers (water and foam) meet this regulation.

So you need at least two of any of the above on each floor.
Exceptions to the rule: if your premises are very small and it would be a hindrance to escape having two extinguishers, then only one may be needed. An example would be a newspaper kiosk.

2. Are there other types of extinguisher I have to have?
Depending on the equipment in your business premises, you are likely to need other types of fire extinguisher.

The most common of these are CO2 extinguishers which are used to fight electrical hazards.

UK fire extinguisher regulations specify: – All premises with electrical equipment must have at least 2kg CO2 extinguishers
– Where there is 415 volt rated equipment, then 5kg CO2 extinguishers are required

There are very few exceptions where you won't need a CO2 extinguisher which is why it is very common to see these paired with foam or water extinguishers, thereby meeting UK fire extinguisher legal requirements.

Other types of extinguisher you may need are: – Dry powder extinguishers: for gas risk, e.g. in boiler rooms (not recommended for other indoor use)
– Wet chemical extinguishers: for kitchens with deep-fat fryers (size of extinguisher depends on size of fryer)

3. Where should extinguishers be located?
The 'standard pair' water-based and CO2 fire extinguishers are usually located by exits and fire alarm manual call-points.

Exceptions to the rule: if your building has a lot more exits or fire alarm call-points than the number of extinguishers you need, then the 30 metre rule below dictates where they should go.

The 30 metre rule comes from current UK British Standards (BS5306) and states that you should be no more than 30 metres from the appropriate extinguisher on any given level of your premises.

'Specialist' extinguishers, such as wet chemical and powder extinguishers should be positioned within easy reach of the specific fire hazard – e.g. the deep fat fryer, flammable gas or liquid storage area.

4. How should extinguishers be 'fitted'?
To comply with fire extinguisher regulations, extinguishers should be either fixed to the wall, or attached to a stand. This is to discourage people from moving them around, for example, using them to prop doors open.

All extinguishers should also be clearly signposted with fire extinguisher ID signs fixed to the stand or the wall. Extinguisher ID signs explain which type of extinguisher they are, and what they can and cannot be used on.

5. Can I buy extinguishers online without going through a fire protection company?
You can, of course, buy fire extinguishers yourself online. Just be sure that they are the right type and size for your premises and that you know where to locate them.

Fire extinguishers must be commissioned on-site by a competent person. This generally means someone who has passed the BAFE fire extinguisher exam or has an equivalent qualification.

Unfortunately fire extinguishers cannot be commissioned before they are installed. This is because issues may arise during the installation itself.

For this reason, you will usually still need to contact a BAFE Registered fire protection company to commission your fire extinguishers, even though you sourced them online.

Frequently asked questions

6. What is fire extinguisher commissioning?
'Commissioning' means that your fire extinguishers have been thoroughly checked and approved as good for use. Fire extinguishers are not compliant with UK fire extinguisher legislation until they have been commissioned, even if you have the right types and sizes of extinguisher in the right locations.
Examples of things checked during commissioning are: – The extinguishers have been assembled properly
– Hoses and horns are correctly attached
– They are of the right weight or pressure
– They are undamaged
The extinguisher engineer will provide you with a certificate as evidence that your extinguishers have been commissioned in accordance with UK regulations.

7. How often should fire extinguishers be serviced?
Fire extinguisher regulations state that extinguishers must be serviced annually (i.e. once a year) by a competent person. Again, this generally means by someone with the relevant BAFE qualifications or equivalent.

8. What happens during a fire extinguisher service?
A fire extinguisher service checks a number of things: – Is the extinguisher in date?
– Is it in visibly good condition?
– Has it been tampered with?
– Is the weight and/or pressure correct?
– Does the pin work?
– Is the hose in good working order?
– Are the instructions on the extinguisher legible?
At the end of the service, the engineer will be able to tell you which extinguishers need replacing, or advise on additional extinguishers you may need to bring you in line with regulations.

9. What 'evidence' do I need that my extinguishers have been serviced to regulations?
If, during a health and safety or fire brigade visit for example, you need to demonstrate that your extinguishers have been adequately serviced, there are a number of things to look for:
1. There will be a service label on the extinguisher showing that it has been serviced in the last year and saying when the next service is due.
2. The service label will record the outcome of the last service as one of the following: – received a basic service
– was refilled
– needs replacing (in which case a new extinguisher should have been purchased)
3. There will be something preventing the pin being accidentally pulled out, such as an 'anti-tamper tag'.
Exception to the rule: this is not the case for extinguishers with plastic pins which have a different design. For these types of extinguisher, the pin itself should be replaced every year.
4. The O-Ring will have been replaced (an O-Ring makes sure the extinguisher has an airtight seal).
5. You will have an in-date service certificate from a BAFE qualified individual or organisation.

10. How often should fire extinguishers be replaced according to regulations?
BS5306 recommends that fire extinguishers are tested by discharge every five years (water, foam and powder) and refilled or replaced, and every ten years (CO2). CO2 bottles are hydraulically tested at the ten year point, or the extinguisher is replaced.
You should also consider that BAFE and the Environment Agency advise against the discharge of water based fire extinguishers onto open land or down drains to prevent hazards to the environment. It is for this reason that we recommend the replacement of extinguishers at the test point rather than test discharge. Our returned extinguishers are then disposed of in an environmentally responsible way.
Exceptions to the rule: if an extinguisher is damaged, discharged or otherwise unable to be used safely, then it should be replaced immediately.

11. Can I get my extinguishers refilled instead of replacing them?
For environmental reasons, it is not advised to pour the contents of fire extinguishers into public drains.
For this reason, latest guidelines recommend replacing extinguishers rather than refilling them – because the residue would have to be disposed of by specialist means.
This also means that, these days, the cost to replace or "service exchange" extinguishers is usually on a par with refilling.

12. Who is responsible for using a fire extinguisher?
It's simply the responsible person. It can be an owner, employer or a designated employee, often referred to as a fire marshal or fire warden.
It's necessary and obligatory to pick a competent person who has recieved appropriate training.
Of course, with proper training, anyone can use an extinguisher in the event of an emergency when, e.g., evacuating a building or as a first aid firefighting appliance.

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