# **Types of Fire Extinguishers**

# Introduction

This is a guide to all the different types of fire extinguishers that we offer at Fireology. In this guide, we will show you all the different types of fire extinguishers. As well as each of their strengths and weaknesses.

It will explain what classes of fire each one of the extinguishers can tackle. Also, this will state what extinguisher suits best each class of fire. This guide shows the benefits of all of these types of extinguishers. As well as why a certain type of extinguisher may be a better fit for you than a different type of extinguisher.

## Water Fire Extinguishers

Water fire extinguishers are the most accessible fire extinguishers. This is likely because of their low price point and their ability to cover the most common type of fire. Water extinguishers are given an A fire rating, which is capable and suited for extinguishing Class A type fires.

Class A fires involve solids such as paper or cardboard, any carbonaceous item fires are defined as Class A fires. This is the most common type of fire as these items are the most combustible and are the most common type of fuel.

Water fire extinguishers cannot cope with Electrical fires and must not be used on Electrical fires. This type of fire extinguisher is most appropriate for areas where the biggest fire risk is a solid material and therefore Class A fire.

# Foam Fire Extinguishers

Foam fire extinguishers are a very commonly used type of fire extinguisher. This is because they are good multi-purpose fire extinguishers that can tackle Class A and Class B fires. Foam fire extinguishers are given an AB fire rating, meaning they are capable of extinguishing Class A and B Fires.

Fires labelled Class A are fires involving solids such as paper cardboard, or any carbonaceous item. Class B fires are fires involving liquids, these can be any of the likes of Cleaning fluids, Solvents, Fuels, Inks, Adhesives, and Paints. Class B fires only make up for 2% of all fires but make up a massive 21% of all fire deaths.

Class B fires are extremely dangerous, this is why many different types of extinguishers aim to tackle them to try to protect the users. The main key to staying safe from Class B fires is prevention, this is why up-to-date COSHH assessments are key. The best fire extinguishers to combat Class B fires are Foam and Dry Powder extinguishers.

## **Dry Powder Fire Extinguishers**

Dry Powder fire extinguishers are a very versatile fire extinguisher that is a main staple in a lot of fire safety setups. These fire extinguishers can be used on Class A, Class B, Class C and Electrical fires making them the most versatile fire extinguisher on the market. Dry Powder extinguishers are given an ABC fire rating but can also tackle Electrical fires.

Class A fires involve solids such as paper cardboard, or any carbonaceous item. Class B fires are fires involving liquids, these can be any of the such as cleaning fluids, solvents, fuels, or inks. Class C fires are fires involving gases, this could be natural gas, LPG or any other gases forming a flammable or explosive atmosphere.

Class C fires can be tackled with fire extinguishers, the best method of stopping these types of fires is shutting off the supply of the gas. Electrical fires aren't their own class of fire because they are seen as more a form of ignition than fuel. But when Electricity is present, Water must not be used. Unlike Foam extinguishers, Dry Powder extinguishers can be used on 'running' flammable liquid fires.

# **CO2 Fire Extinguishers**

CO2 fire extinguishers are perfect for fighting Class B fires and Electrical fires. Its properties allow it not to damage electrical equipment so therefore makes it a great choice for situations where electrical fires are a risk. CO2 extinguishers have a B fire rating but can also combat electrical fires. Class B fires are fires involving liquids, these can be any of the such as cleaning fluids, solvents, fuels, or inks. Electrical fires aren't their own class of fire because they are seen as more a form of ignition than fuel.

CO2 extinguishers are good as they do not leave a harmful residue behind, this is what makes them desirable compared to a lot of the other extinguishers that can fight Class B fires. CO2 extinguishers are also looked at as more environmentally friendly as CO2 is in the air around us anyway so it does not contribute to global warming.

#### **WetCHEM Fire Extinguishers**

WetCHEM fire extinguishers are perfect for kitchens as they can fight Class F fires. WetCHEM extinguishers have an AF fire rating making them equipped to fight Class A or F fires. Class A fires are fires involving solids such as paper cardboard or any carbonaceous items. Class F fires are fires involving deep fat frying and spillages of flammable oils near heat sources. These fires are often found in kitchen environments.

WetCHEM fire extinguishers offer an "easy clean" design making them ideal for kitchens and maintaining hygiene regulations. This type of fire extinguisher works by creating a layer of foam on the burning oil or fat, stopping the supply of oxygen so the fire isn't fuelled any further. For tiny Class F fires a fire blanket could be used but in most cases, a WetCHEM extinguisher would be recommended.

These types of fires can be extremely dangerous and only a small-sized fire would be recommended to be fought with one of these extinguishers.

# **L2 Powder Fire Extinguishers**

L2 Powder fire extinguishers are a unique type of fire extinguisher aimed at combating Class D fires. Class D fires are niche so therefore are not covered by the conventional types of fire extinguishers. Class D fires are fires involving combustible metals such as potassium and magnesium.

Where L2 powder extinguishers thrive is that they are equipped to deal with lithium fires. This is what makes them stand out over M28 extinguishers (which can't deal with lithium fires). Class D fires are very dangerous if the wrong extinguishing medium is used, it can accelerate the fire. This can happen if a chemical or water extinguisher is used.

# **MultiCHEM Fire Extinguishers**

MultiCHEM fire extinguishers are a great multi-class fire extinguisher. They are given an ABF fire rating, which means they can combat Class A, B and F fires. This makes them a step above WetCHEM extinguishers and ordinary Foam extinguishers. This is because they can combat an extra type of fire each. Class A fires are fires involving solids such as paper cardboard or any carbonaceous items. Fires labelled Class B are fires involving liquids, these can be any of the such as fuels, or inks. Class F fires are fires involving deep fat frying and spillages of flammable oils near heat sources. This fire is often found in kitchen environments.

The glory of this type of fire extinguisher is how versatile it is and can be. This perhaps could be used as a perfect kitchen/bar fire extinguisher as its abilities are perfect to combat most of the scenarios that could occur.

#### **Monnex Dry Powder Fire Extinguishers**

Monnex dry powder fire extinguishers are one of the most trusted high-performance dry chemical powders for high-risk firefighting applications. This extinguisher is given a BCE fire rating making it equipped to tackle Class B, Class C and Electrical fires.

Fires labelled Class B fires involve liquids, these can be any of the such as fuels, or inks. Fires labelled Class C are fires involving gases, this could be natural gas or any other gases forming a flammable or explosive atmosphere. Electrical fires aren't their own class of fire because they are seen as more a form of ignition than fuel.

It is the preferred choice when tackling fires involving hydrocarbon oils, gasoline, diesel and liquefied natural gas. These extinguishers can be used where those materials are stored and or processed. It's especially effective against industrial chemicals like alcohol, ketones, ethers and esters. These are materials which conventional dry chemical powders find more difficult to knock down.

The grain of the powder inside of Monnex extinguishers is measured and made sure that when projected from the extinguisher it will ensure maximum projection. This allows the operator to maintain a good distance from the fire.

#### **M28 Powder Fire Extinguishers**

M28 powder fire extinguishers are a great option when in a laboratory or a workshop environment. Wherever a potential risk of a fire comes from metals. This fire extinguisher is given a D fire rating, which means it can only be used on Class D fires. Class D fires are fires involving combustible metals such as potassium and magnesium.

Where the M28 loses out in comparison to the L2 Powder extinguisher is that it cannot put out lithium fires. This isn't important if lithium fires aren't a risk. If lithium fires aren't a risk you will benefit from the M28's lower price point. Class D fires are very dangerous if the wrong extinguishing medium is used, it can accelerate the fire. This can happen if a chemical or water extinguisher is used.

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