



HOW TO USE FIRE EXTINGUISHERS



Fire Extinguishers play an important role in First Aid Fire Fighting and are not expected to deal in large fire. They are all very valuable in the early stages of a fire when used promptly and effectively. The usefulness depends upon the knowledge of person in handling extinguishers, their selection and maintenance.

HOW TO USE FIRE EXTINGUISHERS

It's easy to remember how to use a fire extinguisher if you can remember the acronym **PASS**, which stands for **P**ull, **A**im, **S**queeze, and **S**weep.

Pull the pin or safety clip.

This will allow you to discharge the extinguisher.



Aim at the base of the fire.

If you aim at the flames (which is frequently the temptation), the extinguishing agent will fly right through and do no good. You need want to hit the fuel.



Squeeze/Open the top handle or lever.

This depresses a button that releases the pressurized extinguishing agent in the extinguisher.



Sweep from side to side until the fire is completely out.

Start using the extinguisher from a safe distance away, then move forward. Once the fire is out, keep an eye on side to side the area in case it re-ignites.



SELECTION OF FIRE EXTINGUISHERS

Various types of Fire Extinguisher are available but all are not equally effective on all types of fire. For all practical purpose the basic types of fires can be grouped into the following classes.

A. Class-A Fires: Fire involving combustible materials of Organic nature, such as wood, paper, rubber and many plastics etc., where the cooling effect of water is essential for extinguishing fire.

B. Class-B Fires: Fires involving flammable liquids, flammable solid or the like where a blanketing effect is essential.

C. Class-C Fires: Fires involving flammable gases under pressure including liquefied gases, where it is necessary to inhibit the burning gas at fast rate with an inert gas, powder or vaporizing liquid for extinguishment.

D. Class-D Fire: Fires involving combustible metal, such Magnesium, aluminum, zinc sodium etc, when the burning metals are reactive to water and water containing agents and in certain cases carbon dioxide and ordinary dry powders. These fires require special media and techniques to extinguish.

SUITABILITY OF PORTABLE FIRE EXTINGUISHERS

The types of extinguisher mentioned below against each Class of fire are generally most suitable. It may however, be noted that this is only for guidance and does not cover special cases.

A. Class A Fire	Water Expelling Type Extinguisher
B. Class B Fire	Foam, Dry Chemical powder, Carbon dioxide extinguisher.
C. Class C Fire	Dry powder and Carbon dioxide extinguisher.
D. Class D Fire	Extinguisher designed for expelling special Dry Chemical Powder.

FOLLOWING PROCEDURE SHOULD BE FOLLOWED FOR QUARTERLY MAINTENANCE, INSPECTION AND TESTING OF FIRE EXTINGUISHER

GENERAL

- Make sure that the extinguisher is in proper condition and shall not be accidentally discharged.
- Clean the exterior of the extinguisher, polish the painted portion with wax polish, the brass parts with metal polish and chromium plated parts with silver polish.
- Check the nozzle outlet, vent holes in the threaded portion of the cap for clogging and check that plunger is in fully extended position and is clean.
- Check the cap washer; grease the threads of cap, plunger rod.
- Check all mechanical parts thoroughly.
- Check the proper labels.

Dry Powder Type Fire Extinguisher

- Remove gas cartridge from the cap. Weight the cartridge and compare its mass with full mass of cartridge marked on it, if loss of mass, be replaced by new cartridge.
- Examine the nozzle, hose, vent holes, piercing mechanism of cap cartridge holder, grease and wipe clean.
- Charge it and fit the cartridge and other fittings.
- Give the serial number and record in proper register.

CO₂ Type Fire Extinguisher

- Weight the extinguisher; compare mass against the mass marked on it for fully charged extinguisher. It should be sent for refilling if there is a loss of mass.
- Examine hose, horn and valve assembly.
- Give the serial number and record it in register.

Mechanical Foam Fire Extinguisher

- Remove gas cartridge from the cap. Weight the cartridge and compare its mass with full mass of cartridge marked on it, If loss of mass, be replaced by new cartridge.
- Examine the nozzle, hose, vent holes, piercing mechanism of cap cartridge holder, grease and wipe clean.
- Charge it and fit the cartridge and other fittings.
- Give the serial number and record in proper register.

Water CO₂ Type Fire Extinguisher

- Remove gas cartridge from the cap. Weight the cartridge and compare its mass with full mass of cartridge marked on it, if loss of mass, be replaced by new cartridge.
- Examine the nozzle, hose, vent holes, piercing mechanism of cap. Cartridge holder, grease and wipe clean.
- Charge it and fit the cartridge and other fittings.
- Give the serial number and record in proper register.

ABC Pressure Type Fire Extinguisher

- Check the pressure of extinguisher from the pressure gauge and if found less than required pressure send for refilling.
- Examine the nozzle, hose, vent holes and clean it.
- Give the serial number and record in proper register.

THERE ARE DIFFERENT CLASSES OF FIRE

Your choice of extinguisher for your particular fire risk is crucial In controlling a fire.

Sl No.	Type of Extinguisher	Class	Material involved in fire	Hazard Area	Extinguishing Methods	Warning
1.	Water (CO ₂) Type	A	Organic solids e.g. wood, paper, cloth etc.	Office, hospitals, Theaters, Banks Restaurants etc.	Penetrates cools. Even deep seated "A" class fires	Do not use on live electrical Equipments
2.	Mechanical Foam (AFFF)	B	Inflammable liquids	Petrol storage depots, Manufacturing units of Paints, and Inflammable liquids	A thick foam Blanket over the burning liquid, cutting off oxygen supply	Do not use on live electrical Equipments
3.	Carbon Dioxide (CO ₂)	B, C	Inflammable liquids gases & electrical appliances	Motor pump rooms, Laboratories, Museums and process control area	Aim at the base of fire from close range. CO ₂ being heavier settles below & cuts off oxygen supply	CO ₂ can cause asphyxiation in a confined space, ventilate area after extinguishing fire
4.	Dry Chemical Powder	B, C	Inflammable liquids & gases	Storage areas of LPG, Acetylene Petrol, industrial solvents and electrical equipments	Chemically interferes with the combustion chain	Do not use in very confined spaces as cloud of powder reduces visibility
5.	ABC Powder (Pressure Type)	A, B, C	Organic solids, Inflammable liquid and gases	Open storage generator, rooms, heat treatment shops	Chemically interferes with the combustion chain	Do not use in very confined spaces as cloud of powder reduces visibility

Follow Fire Precautions, Prevent Fire

SCHEDULE FOR HYDRAULIC PRESSURE TESTING OF FIRE EXTINGUISHERS

Every extinguisher installed in premises shall be hydraulically pressure tested as per the schedule given below. There shall not be any leakage or visible distortion. Extinguisher, which fails in these requirements, shall be replaced.

The carbon dioxide type fire extinguishers are sent for recharging (after periodic discharge test or otherwise) to the pressure specified in the relevant Indian Standard specifications.

Sr No.	Type of Extinguisher	Test Interval	Test Pressure	Pressure Maintained for
1	Water type [gas cartridge] IS 940	3 years	17.5 Kg/cm	2.5 min
2	Mechanical foam IS 10204	3 years	17.5 Kg/cm	2.5 min
3	Dry powder type IS 2171, IS 10658, IS-11933	3 years	25.0 Kg/cm	2.5 min

IN CASE OF FIRE DIAL

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OR

**Contact the nearest
Fire Station**



सत्यमेव जयते

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Issued in Public Interest