



Portable Fire Extinguishers – How They Work

Toolbox Talks support job-site health and safety discussions.

Fire needs three elements, known as the **fire triangle**:

- ✓ **Fuel:** burnable material.
- ✓ **Oxygen:** air to support burning.
- ✓ **Heat:** enough energy to ignite fuel.

Remove any one element and the fire goes out.

Types of Portable Fire Extinguishers

Portable extinguishers control small fires in different ways. Choose one rated for the fire class and material involved.

Water Extinguishers

- ✓ Water extinguishers cool burning material below its ignition temperature.
- ✓ Use them for **Class A fires** involving paper, wood, cloth, or many plastics.
- ✓ Do **not** use water on **Class B** flammable-liquid fires; it can spread the fuel and worsen the fire.
- ✓ Do **not** use water on **Class C** fires involving energized electrical equipment.

Carbon Dioxide Extinguishers

- ✓ CO₂ extinguishers displace oxygen to stop combustion.
- ✓ They work well on **Class B** flammable-liquid fires. Use caution in small spaces because CO₂ can also reduce breathable oxygen.

Dry Chemical Extinguishers

Dry chemical extinguishers use nitrogen-pressurized powder to smother flames. They are commonly rated for:

- ✓ **Class A fires:** ordinary combustibles
- ✓ **Class B fires:** flammable and combustible liquids
- ✓ **Class C fires:** energized electrical equipment

Dry chemical extinguishers are common in workplaces.

Check the Label Before Use

These are three common extinguisher types. Each extinguisher label shows the fire class or classes it is designed for.

Review extinguisher labels at work and home so you know when each type should be used. If unsure, ask your safety manager or supervisor.

Toolbox Attendance

Questions? _____

Concerns? _____

Days since Last Incident: _____

Supervisor/Meeting Leader: _____ Date: _____

Signatures of attendees:

Manager review comments:

Manager signature: _____ Date of Review: _____