

Fire Extinguishers: How much do you really know?



How to Use a Fire Extinguisher






What is a portable fire extinguisher?

According to NFPA 10 (2002), a portable device, carried or on wheels and operated by hand, containing an extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing fire.



What is a portable fire extinguisher?



Classifications of Fire

- Class 
 - Ordinary Combustibles: Paper, Plastic, Cloth, Wood
 - Leaves behind an “A”sh when it burns
- Class 
 - Flammable Liquids: Gasoline, Oil, Kerosene, Grease
 - Liquids that “B”oil when heated
- Class 
 - Electrical Fires, or equipment powered by electric
 - Involves an electric “C”urrent or “C”ircuit

Classifications of Fire

- Class  **D**
 - Combustible Metals or Metal Alloys
- Class  **K**
 - Cooking Fires: Animal or Vegetable Oils and Fats
 - Typically found in commercial “K”itchens

Extinguisher Labeling






A

B

C

D

K

CLASSES OF FIRES	TYPES OF FIRES	PICTURE SYMBOL
A	Wood, paper, cloth, trash & other ordinary materials.	
B	Gasoline, oil, paint and other flammable liquids.	
C	May be used on fires involving live electrical equipment without danger to the operator.	
D	Combustible metals and combustible metal alloys.	
K	Cooking media (Vegetable or Animal Oils and Fats)	

Parts of a portable fire extinguisher



Portable fire extinguisher operation

P.A.S.S.

Pull

Aim

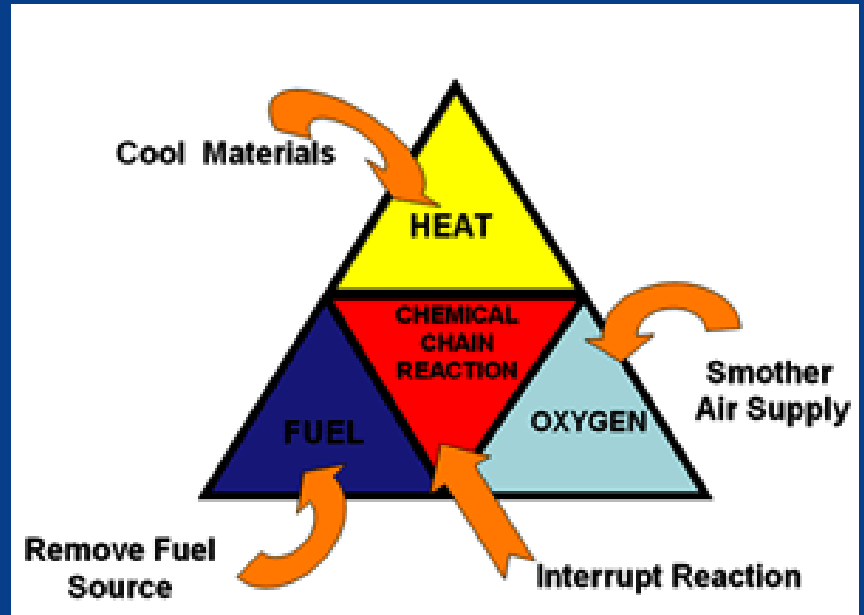
Squeeze

Sweep



Extinguishing Methods

- Smothering
 - Oxygen Exclusion
- Cooling
 - Reduce burning material below its ignition temperature
- Chain Breaking
 - Interrupting the chemical reaction
- Saponification
 - Forming an oxygen excluding soapy foam



Fire Tetrahedron

Types of Extinguishers



Dry Chemical
Class A,B,C
Class B,C



Carbon Dioxide
Class B,C



Water
Class A



Water/Foam
Class A

Types of Extinguishers



Kitchen
Class K



Clean Agent
Class A,B,C
Class B,C

Monthly Inspections

- Extinguisher Location
- Status
- Condition
- Tag



Extinguisher Location

- Must be accessible
 - Not blocked by anything
 - Not locked to prohibit use
- Mounted
 - Hanging from wall
 - Inside cabinet



Extinguisher Status

- Handle is secured
 - Locking pin in place
 - Tamper seal is not broken
- Check Pressure Gauge
 - Should be in “ready” zone
 - If not, it needs to be taken out of service & replaced with a working extinguisher



Extinguisher Condition

- Hose and Nozzle
 - In good condition
 - No signs of cracking or dry rot
- Cylinder
 - Dents, leaks, rust
 - Chemical deposits
- Labels
 - Present and legible



Removing Extinguisher from Service

- Missing or defective extinguishers must be replaced immediately
- Replacement should:
 - Serviced within last year
 - Be tagged & signed



Value of Extinguishers

- Serviceability
- Accessibility
- Simplicity of operation



Safety Factors when Extinguishing a Fire

- Do NOT fight a fire if:
 - Fire is spreading beyond the immediate area where it started or is already a large fire
 - Fire could block your escape route.
 - You are in doubt about whether the extinguisher is the proper type of fire at hand.
- If any of these are true:
 - Leave immediately & close off area



QUESTIONS?