

Portable Fire Extinguishers – Safety Report

Portable fire extinguishers can (and should) be found everywhere; in homes, in the workplace, on boats, at sailing organization, in vehicles, and more. Just having extinguishers around is not enough, especially in the workplace. When extinguishers are provided for use by employees, OSHA's standards for placement, use, maintenance, and testing must be complied with – both for safety and to avoid fines. OSHA fines are per violation, and in this case, it means per fire extinguisher! OSHA's complete standards for Portable Fire Extinguishers are in regulation <u>29 CFR 1910.157</u>. Understanding how and when to use fire extinguishers as well as proper storage is critical. Everyone should know how to use this amazing tool.

Placement is all about ease of access: Blocking an extinguisher *(as shown in photo to right)* is both unsafe and a sure way to an OSHA violation fine. Placement guidelines include:

- Must be signed and mounted to the wall at "grab" height
- Must be free and clear of any clutter
- Must not be blocked in any way (even from temporary items)
- Must have a minimum of 36" of clearance (painting a red or yellow area on floor helps remind employees)
- Must never be used as a hook for coats, sweatshirts, extension cords, or anything else

Common Types: Different extinguishers are designed to fight different types of fires. Most extinguishers are combination extinguishers, of the "ABC" type, which can be used to fight many common fires.

- A Type For common combustibles; paper, wood and trash
- B Type For flammable liquids, greases and gases
- C Type For electrical fires
- D Type For metals
- K or F Type For kitchens or cooking oils

Spacing: The potential type of fire dictates the required spacing and distance from employees. For Class A or D fires, travel distance for employees to any extinguisher must be 75 feet or less. For Class B fires, travel distance must be 50 feet or less. For Class C fires, travel distance is based on appropriate pattern for the existing Class A or Class B hazards.

Operation: Most fire extinguishers operate using the **P.A.S.S.** technique:

- 1. **PULL:** Pull the pin. This will also break the tamper seal.
- 2. **AIM**: Aim low, pointing the extinguisher nozzle (or its horn or hose) at the base of the fire.
- 3. **SQUEEZE:** Squeeze the handle to release the extinguishing again
- 4. **SWEEP**: Sweep from side to side at the base of the fire until it appears to be out. Watch the area. If fire re-ignites, repeat steps 2 4.

2 Aim 2 Aim 3 Sweep 3 Squeeze

Note: Do not touch the plastic discharge horn on CO2 extinguishers, it gets very cold and may damage skin.



Training: Employees need to know how to use fire extinguishers.

- If portable fire extinguishers are provided for employee use in the workplace, the employer must provide an employee educational program
- Training must be provided upon initial employment and at least annually thereafter

Inspection and Maintenance: If extinguishers don't work they are completely useless.

- Extinguishers must be subjected to at least an annual maintenance check
- Extinguishers should be checked monthly; date and initial should be recorded on the back of the tag
- Employers must record the annual maintenance date and retain this record for one year
- Hydrostatic testing must be conducted in accordance with OSHA TABLE L-1, 1910.157(f) (3)
- Complete OSHA testing and maintenance schedules are detailed in <u>29 CFR 1910.157</u>





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Sources: OSHA; Gowrie Group.