

## **Fire Protection**

### **Additional Resources:**

- [Complete OSHA Standard](#)

A fire protection plan is to be followed throughout all phases of the construction and demolition work involved. It shall provide for effective firefighting equipment to be available without delay, and designed to effectively meet all fire hazards as they occur. 1926.150(a)(1)

Firefighting equipment shall be conspicuously located and readily accessible at all times, be periodically inspected, and be maintained in operating conditions. 1926.150(a)(2) to (4)

A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of the protected building area, or major fraction thereof. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet. 1926.150(c)(1)

A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas are being used on the jobsite. This requirement does not apply to the integral fuel tanks of motor vehicles. 1926.150(c)(1)(vi)

Suitable fire extinguishing equipment shall be immediately available in all hot work areas (including welding, cutting, and heating) and shall be maintained in a state of readiness for instant use. 1926.352(d)

The employer shall establish an alarm system at the worksite so that employees and the local fire department can be alerted for an emergency. 1926.150(e)(1)

### **The Mechanics of a Fire**

Oxygen, heat and fuel are often referred to as the “fire triangle.” But you also need the chemical reaction so the triangle actually becomes a “fire square.”

Take away any of the four elements and the fire will not occur or will be extinguished. That is the premise behind all extinguishing agents: remove one of the elements.

The following tables illustrate the class of fire extinguishing agent types and methods for extinguishing a fire.

Letter	Symbol	Type of Material	Examples of Materials
A		Common Combustibles	Wood, Paper, Cloth, etc.
B		Flammable Liquids and Gases	Gasoline, Propane and Solvents
C		Live Electrical Equipment	Computers, Fax Machines, etc.
D		Combustible Metals	Magnesium, Lithium, Titanium, Sodium, Aluminum Powder
K		Kitchen Fires	Cooking Oils and Fats

**Multi - Class Fire Extinguishers**

AB			
AC			
BC			
ABC			

## A Quick Guide to Fire Extinguishing Agents

AGENT	CLASS OF FIRE			
	A	B	C	K
Multi - Purpose Dry Chemical	X	X	X	
Regular Dry Chemical		X	X	
Purple K Dry Chemical		X	X	
Type K Wet Chemical				X
Carbon Dioxide		X	X	
Halotron	X	X	X	
Water	X			
Foam	X	X		

Types of Extinguishers	Method of Operation	Range	Upkeep
<b>Water Type</b>			
Stored Pressure	Pull Pin, Squeeze Handle	30' - 40'	Check Air Pressure Gauge Monthly
Cartridge Operated	Turn Upside Down & Pump	30' - 40'	Weigh Gas Cartridge, Add Water If Required Annually
Water Pump Tank	Pump Handle	30' - 40'	Discharge and Fill with Water Annually
*Soda Acid	Turn Upside Down	30' - 40'	Discharge and Recharge Annually
*Foam	Turn Upside Down	30' - 40'	Discharge and Recharge Annually
Carbon Dioxide	Pull Pin, Squeeze Lever	3' - 8'	Weigh Semi-Annually
<b>Dry Chemical / Sodium or Potassium Bicarbonate</b>			
Cartridge Operated	Rupture Cartridge, Squeeze Lever	5' - 20'	Weigh Gas, Cartridge, Check Dry Chemical Annually
Stored Pressure	Pull Pin, Squeeze Handle	5' - 20'	Check Pressure and Dry Chemical Annually
<b>Dry Chemical / Multipurpose ABC</b>			
Cartridge Operated	Pull Pin, Squeeze Handle	5' - 20'	Check Pressure and Dry Chemical Annually

