

PORTABLE FIRE EXTINGUISHERS

NFPA

- NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS

EXTINGUISHING METHODS

- **SMOTHERING**(OXYGEN EXCLUSION)
- **COOLING** (REDUCES HEAT OF BURNING MATERIAL BELOW ITS IGNITION TEMPERATURE)
- **CHAIN BREAKING** (INTERRUPTS CHEMICAL CHAIN REACTION)
- **SAPONIFICATION** (FORMS AN OXYGEN EXCLUDING)

TYPES OF EXTINGUISHERS

- **PUMP TYPE**
 - DESIGNED FOR CLASS A FIRES ONLY
- **STORED-PRESSURE**
 - PRESSURIZED WATER (PW) EXTINGUISHER
 - CLASS A FOAM SOMETIMES ADDED TO INCREASE EFFECTIVENESS
- **WATER MIST**
 - DESIGNED FOR CLASS A/CLASS C
 - STORED/PRESSURIZED DEIONIZED WATER(NON CONDUCTIVE)
 - NOZZLE CREATES FINE MIST
- **WET CHEMICAL STORED PRESSURE**
 - DESIGNED FOR CLASS K GREASE FIRES.
 - POTASSIUM BASED ALKALINE AGENT
- **AQUEOUS FILM FORMING FOAM (AFFF)**
 - DESIGNED FOR CLASS B FIRES
 - NOZZLE HAS AN AIR-ASPIRATING ACTION FOR BETTER FOAM

- **NOTE:** AFFF IS CORROSIVE AND CAN REMOVE PAINT TO TOOLS AND APPARATUS
- **CLEAN AGENT EXTINGUISHERS**
 - DESIGNED FOR CLASS A/CLASS B/ CLASS C FIRES
 - DOES NOT DAMAGE COMPUTER EQUIPMENT
- **CARBON DIOXIDE**
 - DESIGNED FOR CLASS B/CLASS C FIRES
- **DRY CHEMICAL**
 - DESIGNED FOR CLASS A/CLASS B/CLASS C FIRES
 - MOST COMMON 2A10BC
 - MULTIPURPOSE (ABC) EXTINGUISHER
 - NON-TOXIC// IRRITANT
 - DRY CHEMICALS:
 - SODIUM BICARBONATE
 - POTASSIUM CHLORIDE
 - POTASSIUM BICARBONATE
 - MONOAMMONIUM PHOSPHATE
 - UREA-POTASSIUM BICARBONATE

AGENTS FOR METAL FIRES

- SOME AGENTS DESIGNED FOR ONE METAL
- SOME AGENTS DESIGNED FOR MULTIPLE METALS
- PRESSURIZED CYLINDER/ APPLIED WITH A SCOOP OR SHOVEL

PORTABLE EXTINGUISHERS RATING SYSTEM

- (UL) UNDERWRITERS LABORATORIES RATES EXTINGUISHERS
- **CLASS A**
 - 1-A THROUGH 40-A
 - 1-A = 1 ¼ GALLONS (5L)
- **CLASS B**
 - 1-B THROUGH 640-B
 - 1-B = 1 SQ/FT FLAMMABLE LIQUID

- **CLASS C**
 - ENSURE THAT THE EXTINGUISHING AGENT IS NON CONDUCTIVE
- **CLASS D**
 - EACH AGENT IS SPECIFIC TO ITS COMBUSTIBLE METAL.
 - CANNOT BE GIVING A MULTIPURPOSE RATING
- **CLASS K**
 - AGENT THAT SAPONIFICATES THE COOKING OIL (CONVERT FATTY ACIDS INTO SOAP)

USING PORTABLE FIRE EXTINGUISHERS

- P-PULL THE PIN
- A- AIM AT THE BASE OF THE FIRE
- S- SQUEEZE THE TRIGGER
- S-SWEEP THE NOZZLE BACK AND FOURTH

OBSOLETE PORTABLE FIRE EXTINGUISHERS

- HALON 1211
- HALON 1301