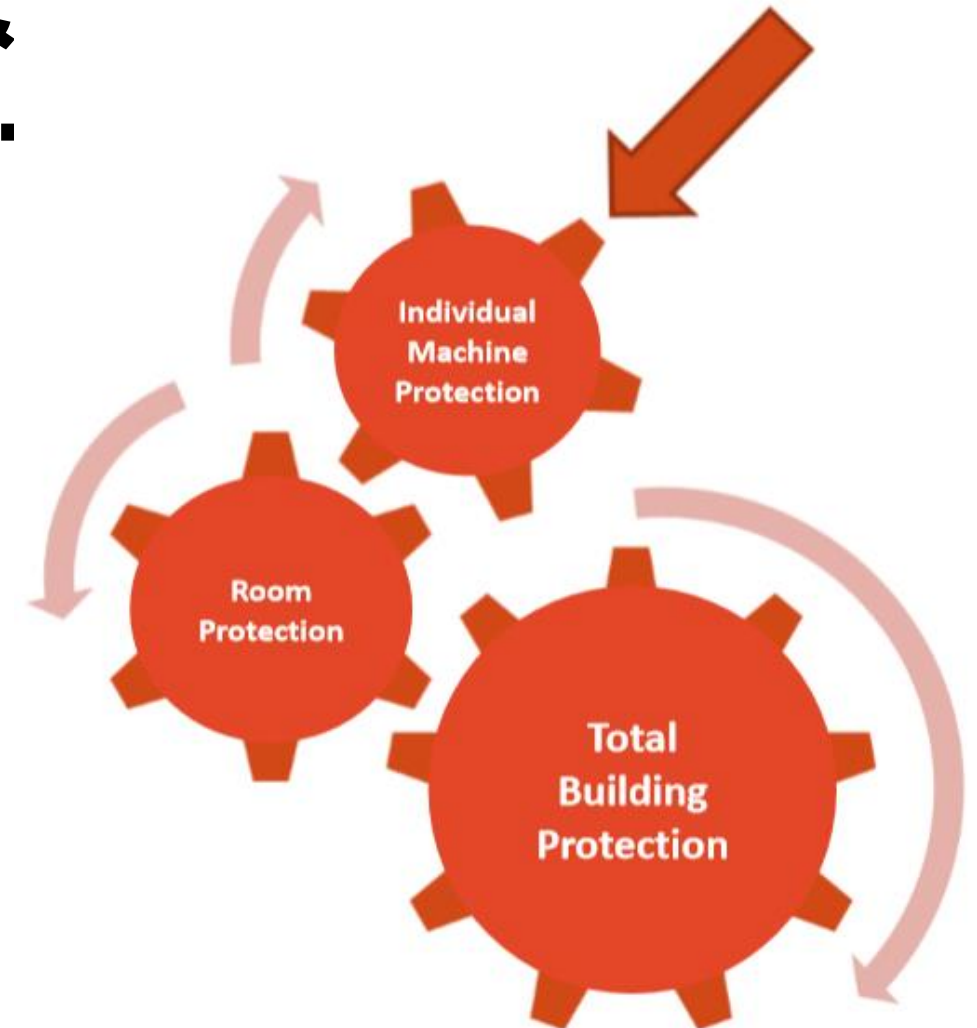
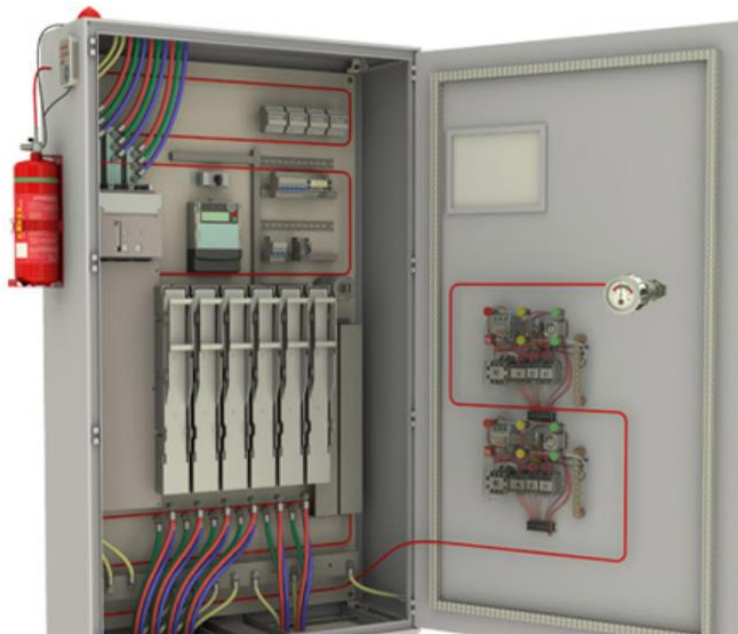


NOT JUST FIRE DETECTION & ROOM FLOODING SYSTEM...

Introducing an **Electrical Cabinet Suppression System (ECS)**

SOURCE-REFERENCE SYSTEM DESCRIPTION

.....for individual panel/machine protection- **Making Electrical Panels Fire Safe**



ELECTRICAL FIRE HAZARD | FACTS

Why Protect Electrical Cabinets?

- 13% of non-home structure fires are due to electrical distribution and components
- 21% of property damage is the reason of electrical cabinet fires

Causes of Fire

- Short-circuits, overloading or overheating of components
- Defective electrical connections
- Electrical malfunctioning
- Electrical surges
- Fatigue/Life time of electrical wires
- Incorrect installation
- Faulty equipment

Consequences of Electrical Cabinet Fires

- Damage to equipment and surrounding areas
- Operations interruption/downtime
- Possible loss of clients
- Financial loss
- Business & Asset safety risk



NBC 2016-

Clause 3.4.6.3- Substation/Transformers

Electrical MV main distribution panel and lift panels shall be provided with CO2/inert gas/Clean gas flooding system for all panel compartments with a cylinder located beside the panel.

Recommendation of other Agencies

NFPA: National Electrical Code 2014- Automatic suppression systems shall be fitted at the source of power

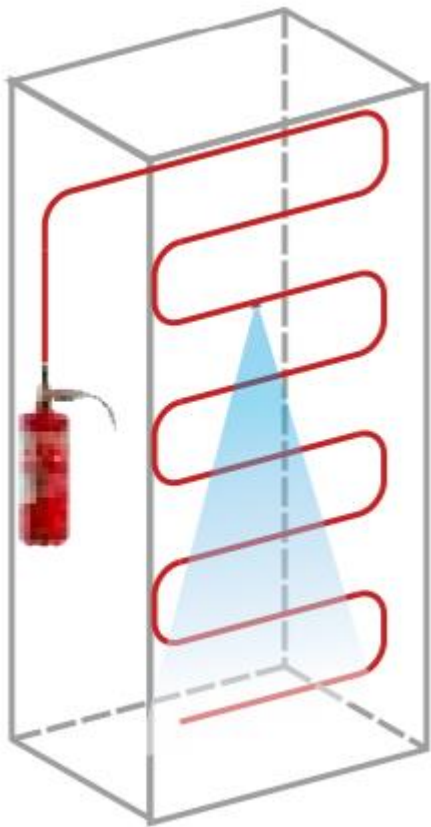
European Union: EU Directive 2006/95/EC



Need of An ECS System

- Reduces even the most critical Electrical Fire risks
- Complete suppression from combustion from short circuits, overloading or overheating in an electrical cabinet
- Avoids work stoppage & business downtime
- Protects business & property assets
- Leaves out no residue & environmental friendly

PROPERTIES	CO2	FK-5-1-12
NFPA Standard	NFPA-12- Lethal for Humans & Animals. Strongly not recommended in manned area	NPFA 2001- Clean agent. No residue - safe for electronics
Reaction	Non-reactive	Non-reactive / Non-corrosive
Discharge Time	30 Sec	10 Sec
Pressure Rating	Medium Pressure (60 bar)	Low pressure (13.5-16 bar)



ECS SYSTEM | OVERVIEW

The Solution

Source ECS system uses the detection & suppression tubing system which is installed throughout the and connected to the cylinder valve. The tubing is charged with dry nitrogen to pressurize it inside the cylinder

The system uses heat-sensitive pneumatic polymer tubing that reliably detects and releases the extinguishing agent through Heat Detection Tube. Multiple temperature rated tubing options (110 or 180 degree celsius) protect a variety of hazards and equipments. Optional dual-outlet valves allow more versatility to protect larger hazards than a single valve system



Cylinder with FK Agent



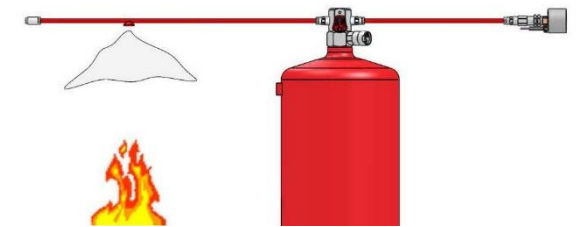
Heat Detection Tube



Pressure Switch



End of Line Adaptor



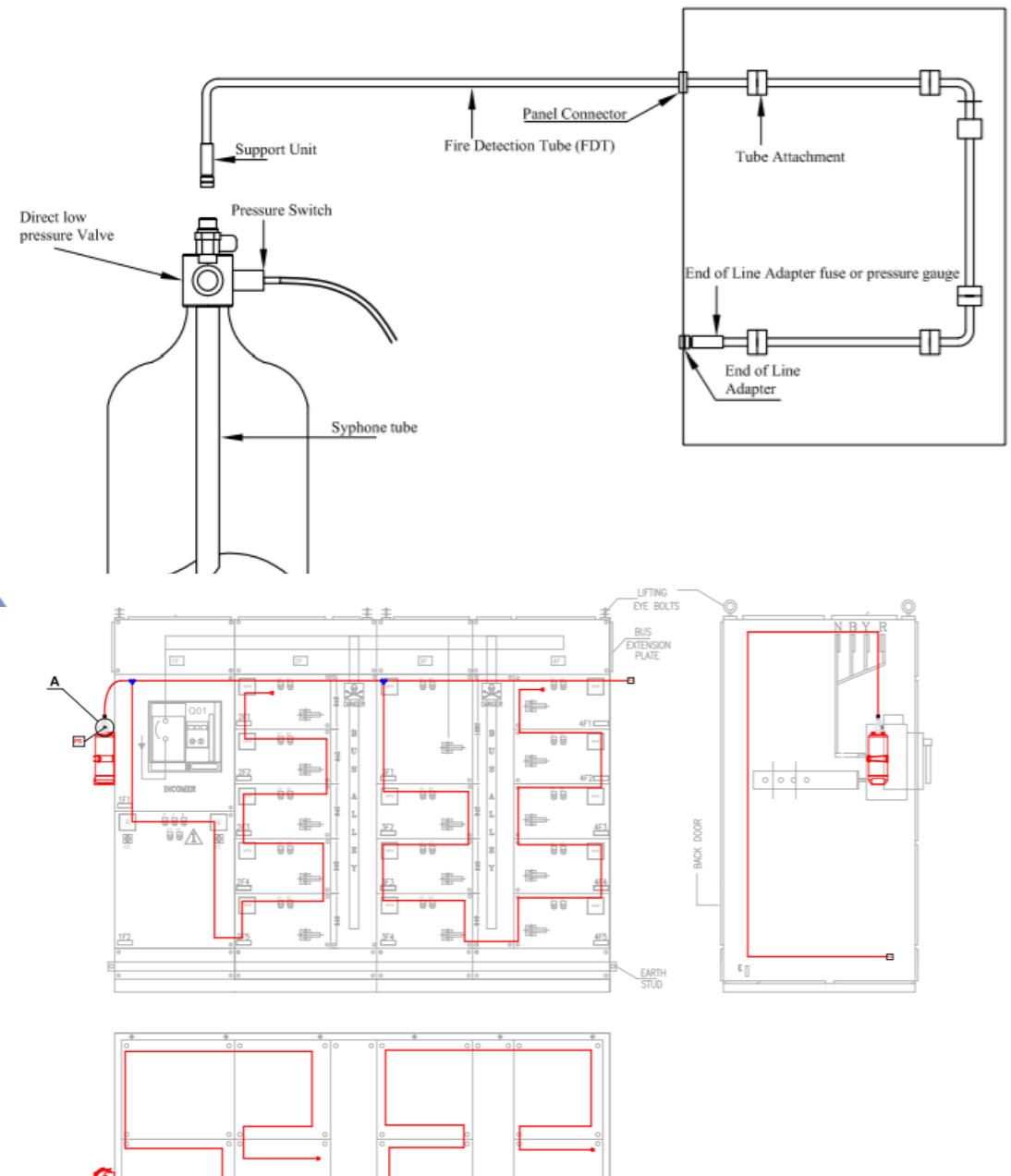
Dual Outlet Value

ECS | SYSTEM WORKING

Cylinder with clean agent is connected to one end of the heat detection tube, the tube is laid inside the cabinet & enclosure. On detecting a temperature of 110°C or above heat detection tube de-pressurizes itself to the atmospheric pressure & ruptures it at the source of fire/heat.

The clean agent from the cylinder system flows through the Heat Detection Tube & get released from the ruptured hole. The fire is quickly suppressed just moments after it began, hence minimizing damage and downtime

This most innovative technology makes this system fully automatic. It requires no power & human intervention specially applicable for “micro-environments” where the fire hazard likely to be in the enclosed space



A COMPLETE PRE-ENGINEERED SYSTEM

- Designed to protect & suppress Electrical Enclosures and Circuitry
- Pre-Engineered Electrical Cabinet Suppression System kit



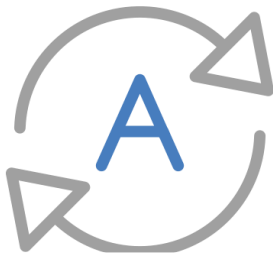
RELIABILITY

- UL Listed Clean Agent & Heat Detection Tube
- Dual Valve Outlet- Ensures substantial savings yet protecting large sized cabinets



FULLY AUTOMATIC

- Automatically detects and suppresses fire
- No external power or Human intervention required



FAST DETECTION

- Get Installed directly inside electrical cabinets – closer to where a fire can start



TARGET SEGMENT | APPLICATIONS



UPS Units



**Electrical &
Electronic
Cabinets**



**Data
Processing
Cabinets**



**Transformer
Cabinets**



**Flammable
Chemical
Storage
Cabinets**



**Generator
Enclosures**



**Pump
Enclosures**



**Laboratory
Exhaust Cabinets**



**CNC & VMC
Machining
Cabinets**

ECS-250

ECS-500

ECS-1000

Kit contains FK-5-1-12
Fire Suppression Fluid
(2.5lbs/5lbs/10lbs),
ECS Cylinder bracket
(1), EOL Adapter
W/Pressure Gauge (1),
Rubber Grommets (4),
Plastic Loop Clamps
(25)

