





SagTaur 
SYSTEMS PRIVATE LIMITED

**MOST TRUSTED
DISTRIBUTORS &
SYSTEM INTEGRATORS**



www.sagtaur.com

Legacy @ A Glance

Date of Operations Commencement	Work Scope	Clientele	Geographical Spread
<ul style="list-style-type: none">• 2001	<ul style="list-style-type: none">• Hotels• Hospitals• Metro Rail Projects• Airports• Corporates• Warehouses• IT Park• Industrial sectors.	<ul style="list-style-type: none">• 210+	<ul style="list-style-type: none">• India• Sri Lanka• Nepal• Maldives• Seychelles

Motto



T

Timely Delivery Every Time

R

Reliable Service

U

User Friendly Solutions

S

Service Back Up 100%
Guaranteed

T

Transparency in every stage



SCOPE OF WORK



FIRE DETECTION

FIRE FIGHTING

**PUBLIC ADDRESS &
Voice Evacuation
system**

**WATER MIST
SYSTEM**

FOAM SYSTEM

**ELECTRICAL
Panel Flooding
System**

**GAS FLOODING
(Novec, FM200,
Inergen & Nitrogen)**

**KITCHEN
HOOD Fire
suppression
system**

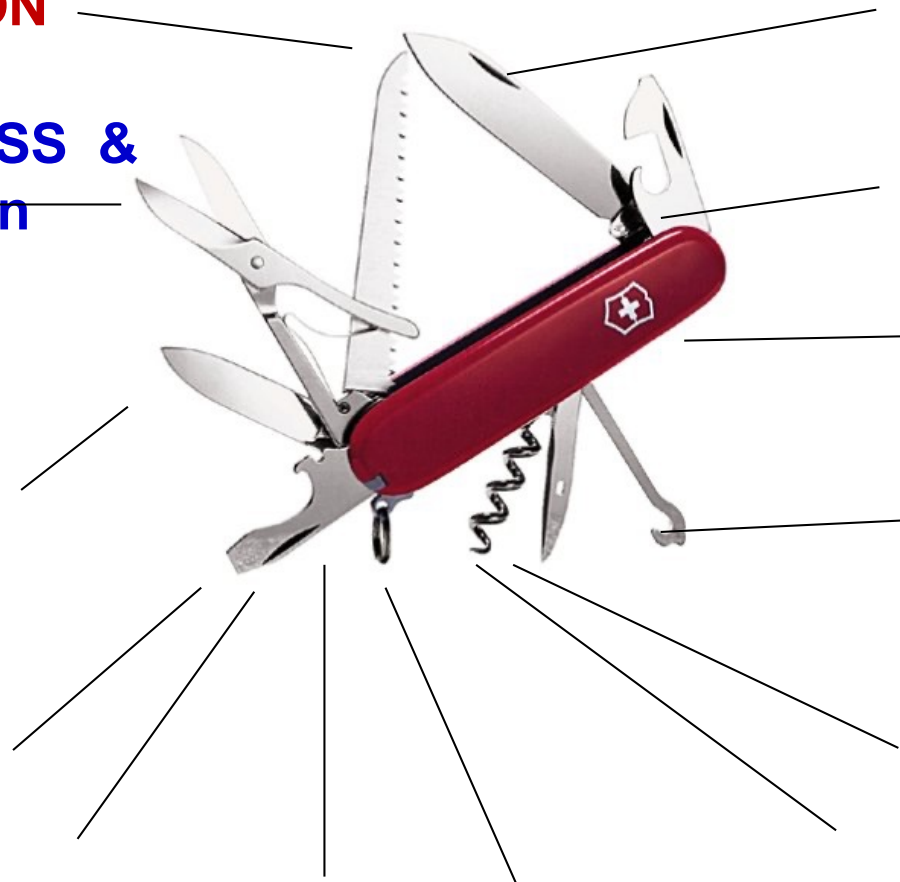
EXIT SIGNAGES

**CCTV &
ACCESS
CONTROL**

**BMS
SYSTEM**

**VALVES &
ACTUATORS**

**EMERGENCY
LIGHTS**



AUTHORISED DISTRIBUTOR



WITH WELL TRAINED SERVICE TEAM



Fire Safety – Detection & Protection



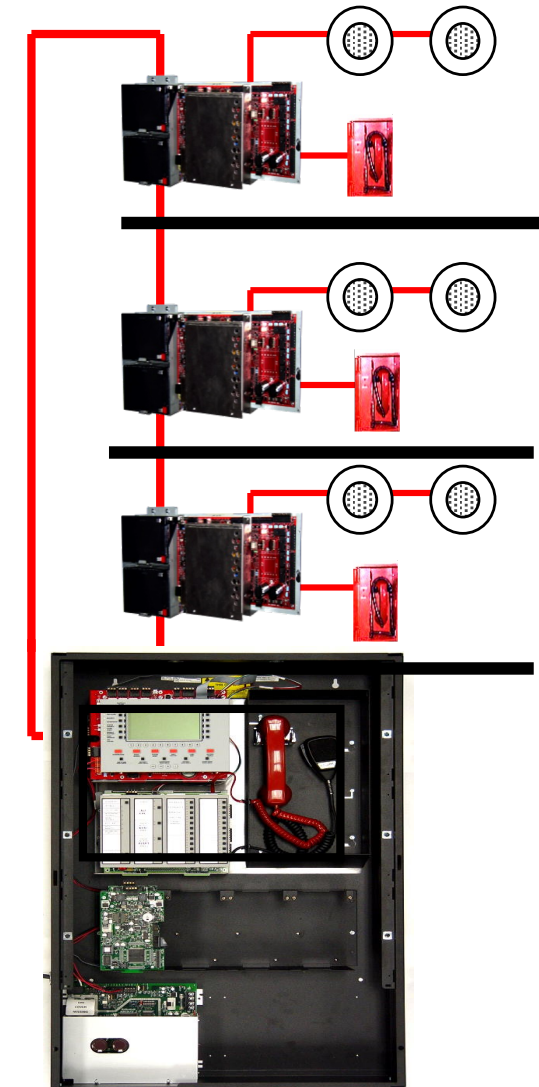
**REPUTED , RELIABLE MAKES WITH
EXCELLENT TECHNICAL BACK UP**

- **Full range of Fire Detection and Alarm Systems
Conventional
Addressable**
- **Design as per NFPA / NBC guidelines**
- **Capable of executing any type of Cause & Effect Fire Matrix**

Public Address system to Integrated Digital Voice Evacuation System as per Cause & effect Matrix

- **Digital Voice Command Center**
 - **Digital Audio Amplifier**
- ✓ From message storage to amplifier, everything is Digital to eliminate distortion
- ✓ Up to 32 Digital Audio Amplifiers can be connected to a DVC center
- ✓ We can programme the messages zone wise for an easy & proper evacuation

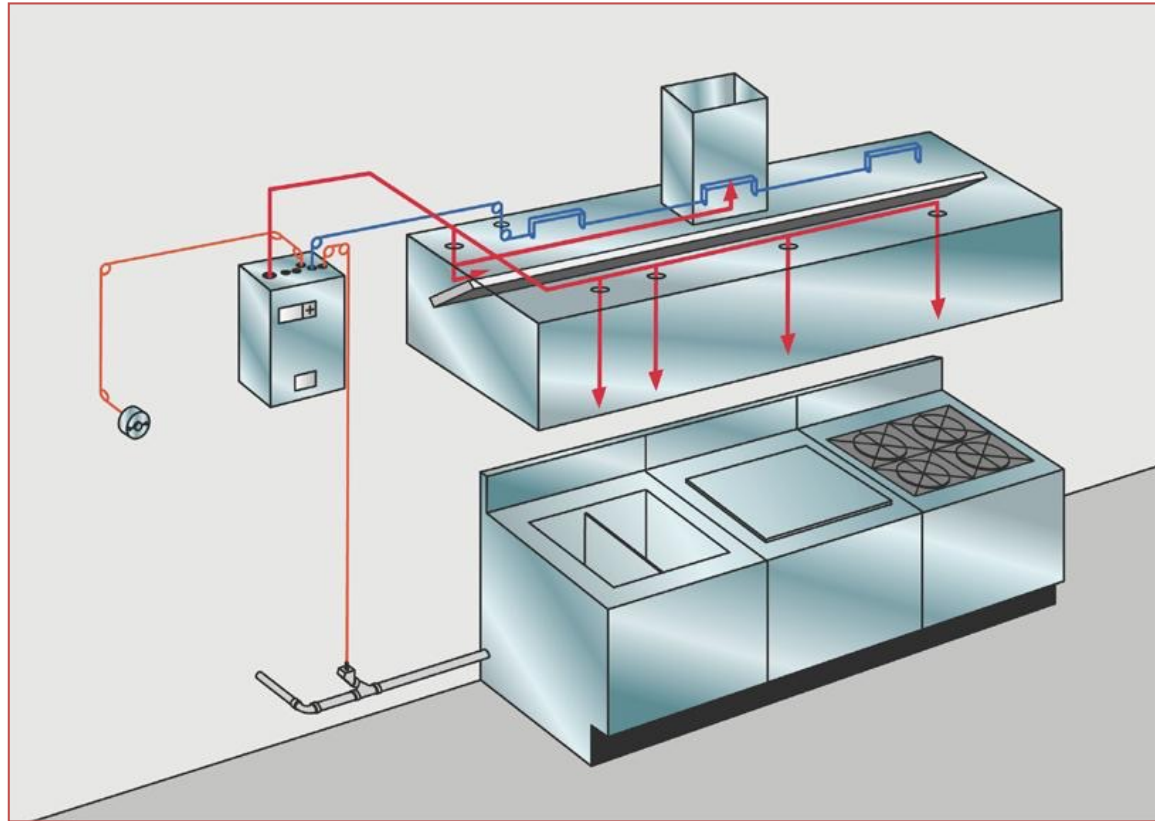
It can work as an Independent or standalone System



Kitchen Hood Fire Detection & Suppression System

AUTOMATIC OPERATION

- Automatic Detection
- Automatic Actuation



ANNEX G

(Clause 6)

COMMERCIAL KITCHENS

G-0 GENERAL

The provisions given herein are applicable to those commercial kitchens serving in centrally air conditioned buildings such as kitchens of starred hotels, food courts, malls, banquet halls and restaurants.

Electricity, gas and in some cases solid fuels such as wood or charcoal are the energy sources used to power a commercial kitchen.

The potential hazards posed by the commercial cooking facilities are as follows:

- a). *On cooking appliances using oil as fuel* —
The oil can self-ignite due to overheating of the cooking appliances or through open flames.
- b) Full grease residues trapped in the hoods due to non-cleaning of filters and dusts periodically and exhaust ventilation system can ignite through overheated air flues or open flames.
- c) Faulty electrical equipment and electrical installation are more likely to spark, and

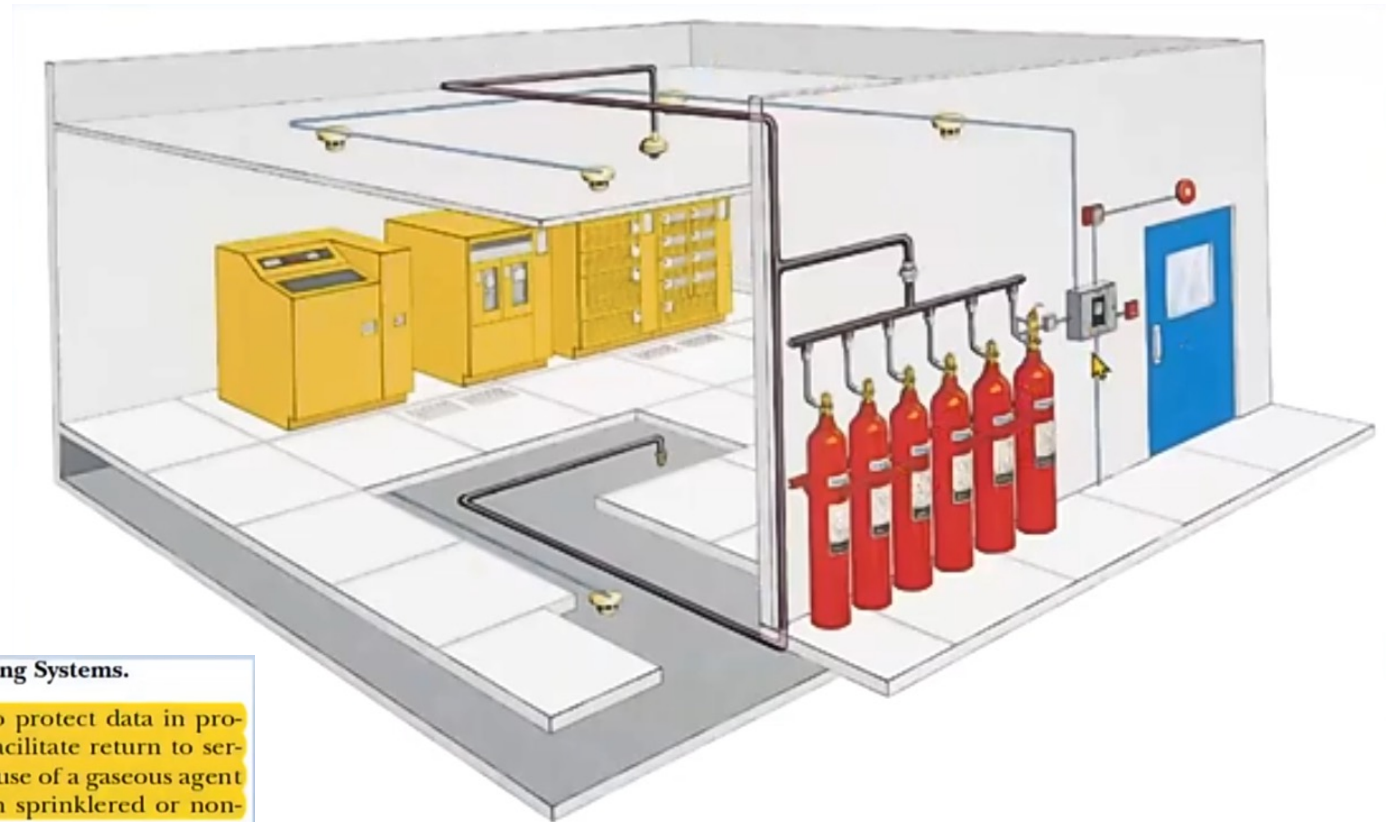
G-2 FIRE PROTECTION SYSTEMS

- a) A kitchen fire suppression system needs to be installed whenever cooking appliances are using LPG/PNG/oil/electricity and/or dry fuel like wood or charcoal for cooking and/or can ignite the exhaust or fat for cooking and/or can ignite the ventilation system. Cooking equipment that produces grease-laden vapours and that might be a source of ignition of grease in the hood, grease removal device, or duct shall be protected by fire-suppression equipment.
- b) The initial fire hazard is the cooking appliance itself. However, once the exhaust ventilation system is involved in fire due to propagation from the appliances, the exhaust system becomes the more severe hazard due to the potential of fire propagation outside the cooking space.
- c) The requirement for kitchen fire suppression systems shall be directly linked to measurements that actually represent the risk. Some other contributory factors could be but

Gas Based Fire Suppression System



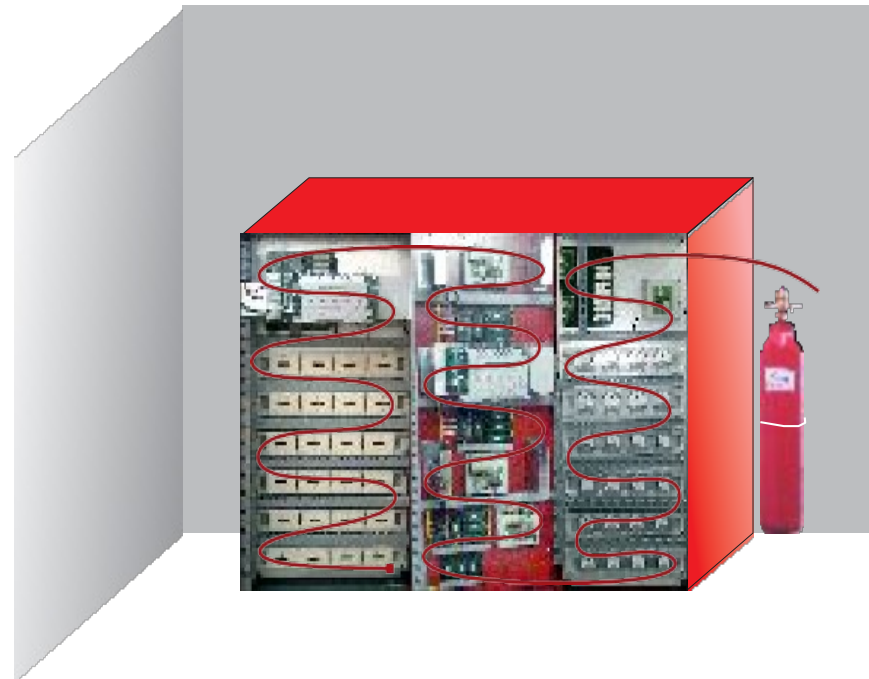
- NOVEC
- FM200
- INERGEN
- Nitrogen



6-4 Gaseous Total Flooding Extinguishing Systems.
6-4.1* Where there is a critical need to protect data in process, reduce equipment damage, and facilitate return to service, consideration shall be given to the use of a gaseous agent inside units or total flooding systems in sprinklered or non-sprinklered computer areas.

Panel Flooding System

Flame / Heat Detection



Upon detection of a fire, nitrogen gas is released from the unit. The nitrogen gas dilutes the oxygen level within the enclosure, and consequently suppresses the fire.

3.4.6.2 Emergency power for fire and life safety systems

Emergency power supplying distribution system for critical requirement for functioning of fire and life safety system and equipment shall be planned for efficient and reliable power and control supply to the following systems and equipment where provided:

- a) Fire pumps.
- b) Pressurization and smoke venting; including its ancillary systems such as dampers and actuators.
- c) Fireman's lifts (including all lifts).
- d) Exit signage lighting.
- e) Emergency lighting.
- f) Fire alarm system.
- g) Public address (PA) system (relating to emergency voice evacuation and annunciation).
- h) Magnetic door hold open devices.
- j) Lighting in fire command centre and security room.

Power supply to these systems and equipment shall be from normal and emergency (standby generator) power sources with changeover facility. If power supply, is from HV source and HV generation, the transformer should be planned in standby capacity to ensure continuity of power to such systems. Wherever transformers are installed at higher levels in buildings and backup DG sets are of higher voltage rating, then dual redundant cables shall be taken to all transformers. The generator shall be capable of taking starting current of all the fire and life safety systems and equipment as above. Where parallel HV/LV supply from a separate substation fed from different grid is provided with appropriate transformer for emergency, the provision of generator may be waived in consultation with the Authority.

The power supply to the panel/distribution board of these fire and life safety systems shall be through fire proof enclosures or circuit integrity cables or through alternate route in the adjoining fire compartment to ensure supply of power is reliable to these systems and equipment. It shall be ensured that the cabling from the adjoining fire compartment is protected within the compartment of vulnerability. The location of the panel/distribution board feeding the fire and life safety system shall be in fire safe zone ensuring supply of power to these systems.

3.4.6.3 Substation/Transformers

Areas in substation shall not be used for other utility purposes required for the functioning of the

The substation area should be adequately maintained. **SYSTEMS PRIVATE LIMITED**

An independent, ventilated or air conditioned MV panel room shall be provided on the ground level or first basement. This room shall be provided with access from outside (or through exit passageway accessible from outside). The MV panel room shall be provided with fire resistant walls and doors of fire resistance of not less than 120 min.

If the licensees agree to provide meters on upper floors, the licensees' cables shall be segregated from consumers' cables by providing a partition in the shaft. Meter rooms on upper floors shall not open into staircase enclosures and should be ventilated directly to open air outside or in electrical room of 120 min fire resistant walls.

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

3.4.6.3.1 Oil filled substation

A substation or a switch-station with oil filled equipment shall be limited to be installed in utility building or in outdoor location. Such substation/utility building shall be at least 7 m away from the adjoining building(s).

Substation equipment (exceeding oil capacity of 2 000 litre) in utility building shall have fire rated baffle walls of 240 min rating constructed between such equipment, raised to at least 600 mm above the height of the equipment (including height of oil conservators) and exceeding 300 mm on each side of the equipment.

All transformers where capacity exceeds 10 MVA shall be protected by high velocity water spray systems or nitrogen injection system.

3.4.6.3.2 Dry type substation

Transformers located inside a building shall be of dry type and all substation/switch room walls, ceiling, floor, opening including doors shall have a fire resistance



OSID –

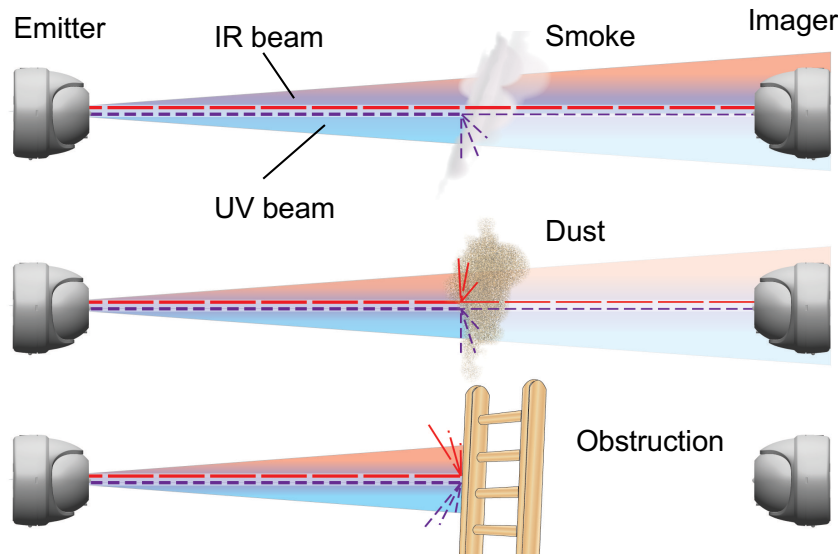
Open-area Smoke Imaging Detection

For High Ceilings, Atrium

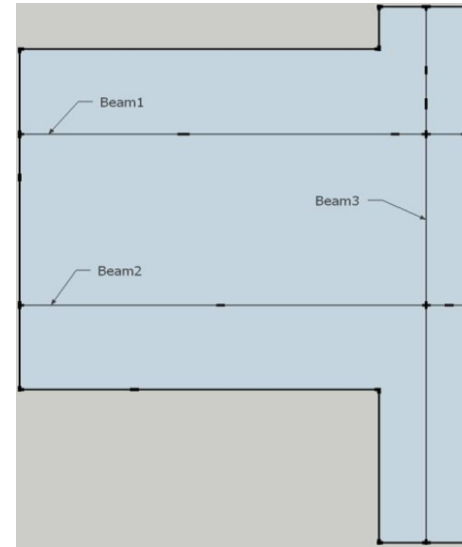


Dual light frequencies (UV and IR)....to minimise nuisance alarms

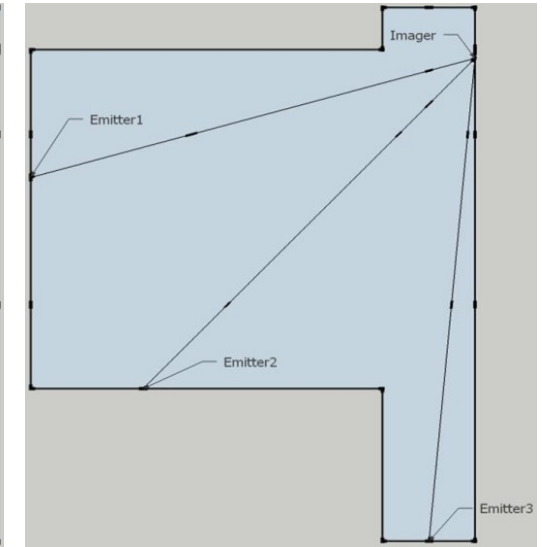
The shorter UV wavelength interacts strongly with both small and large particles while the longer IR wavelength is affected more by larger particles.

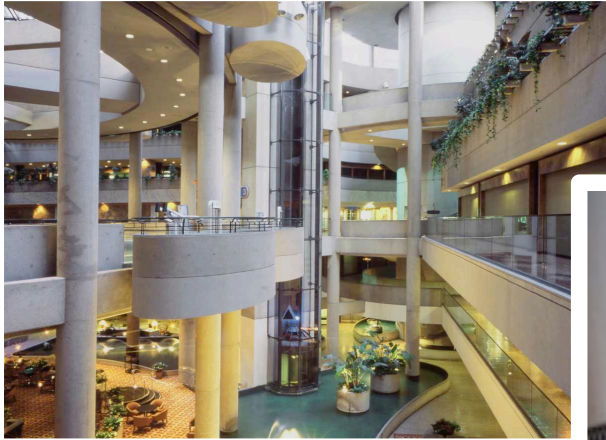


Traditional beams



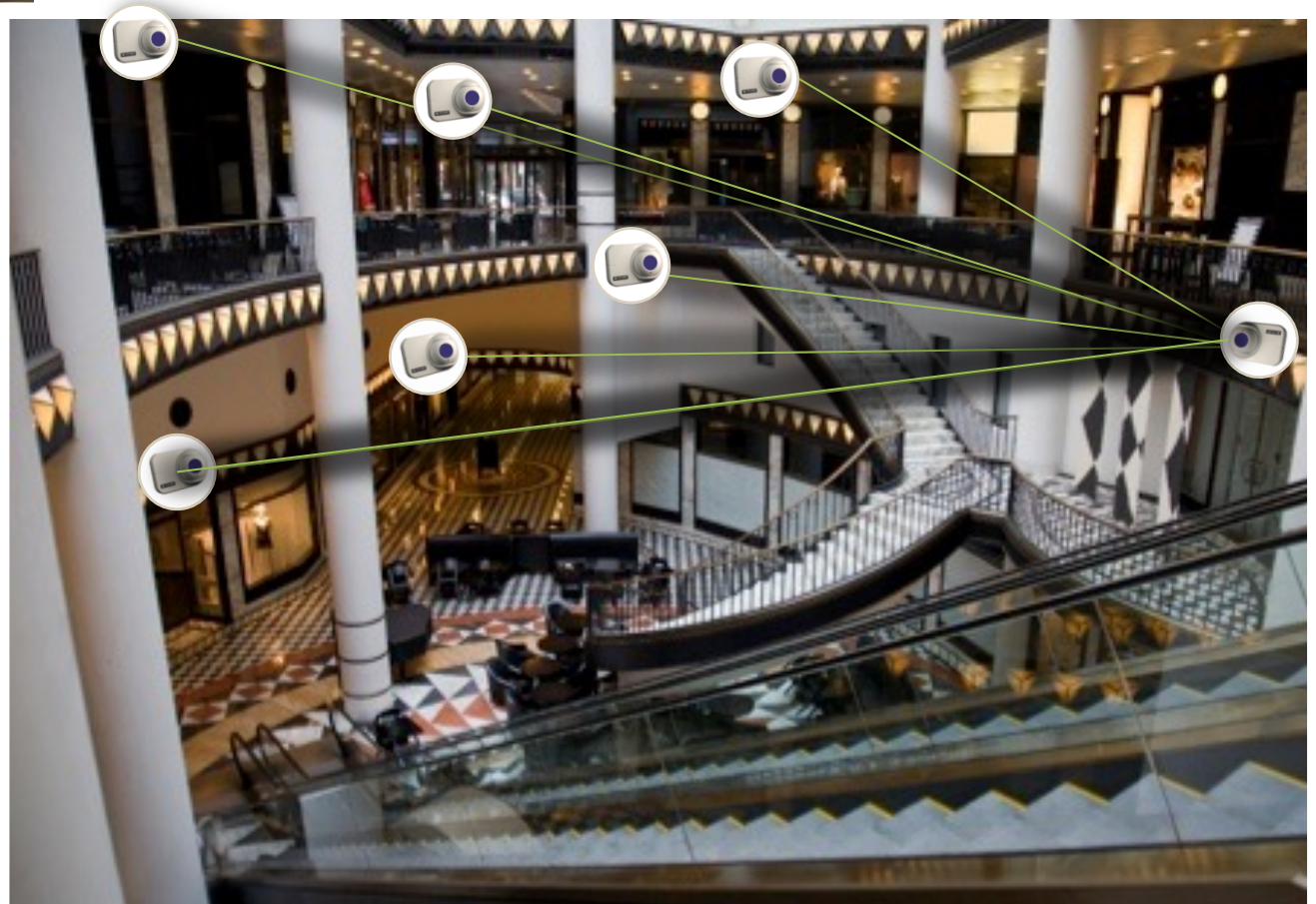
OSID





Shopping Mall and Galleries

3-D arrangement
may be configured
to protect many
Large Open
Spaces





Minimal consumption of water, giving the best possible protection.

Danfoss SEM-SAFE® –

- **Unique high-pressure water mist system.**
- **Harmless to humans and environmentally friendly.**
- **Its reliability and efficiency has been successfully proven in rigorous fire tests.**



Danfoss



SagTaur
SYSTEMS PRIVATE LIMITED

- 1. Industries**
- 2. Data Centre**
- 3. Library**
- 4. Museum**
- 5. Restaurant / Sky bar / Glass protection (OH1)**
- 6. Kitchen / Canteen (OH1)**
- 7. Hotel / Hospital (OH1)**
- 8. Parking space (OH1)**
- 9. Office / Conference room (OH1)**
- 10. Stairs (OHI)**
- 11. Laundry room (OH3)**
- 12. Storage room (OH3)**
- 13. Reception / Lobby (OH1)**
- 14. Auditoriums (OH4)**
- 15. Pump room / Technical room (OH1)**
- 16. Underground car park (OH2)**



The intelligent use of water

High-pressure water mist

The SEM-SAFE® high-pressure water mist system attacks two elements of the fire triangle:

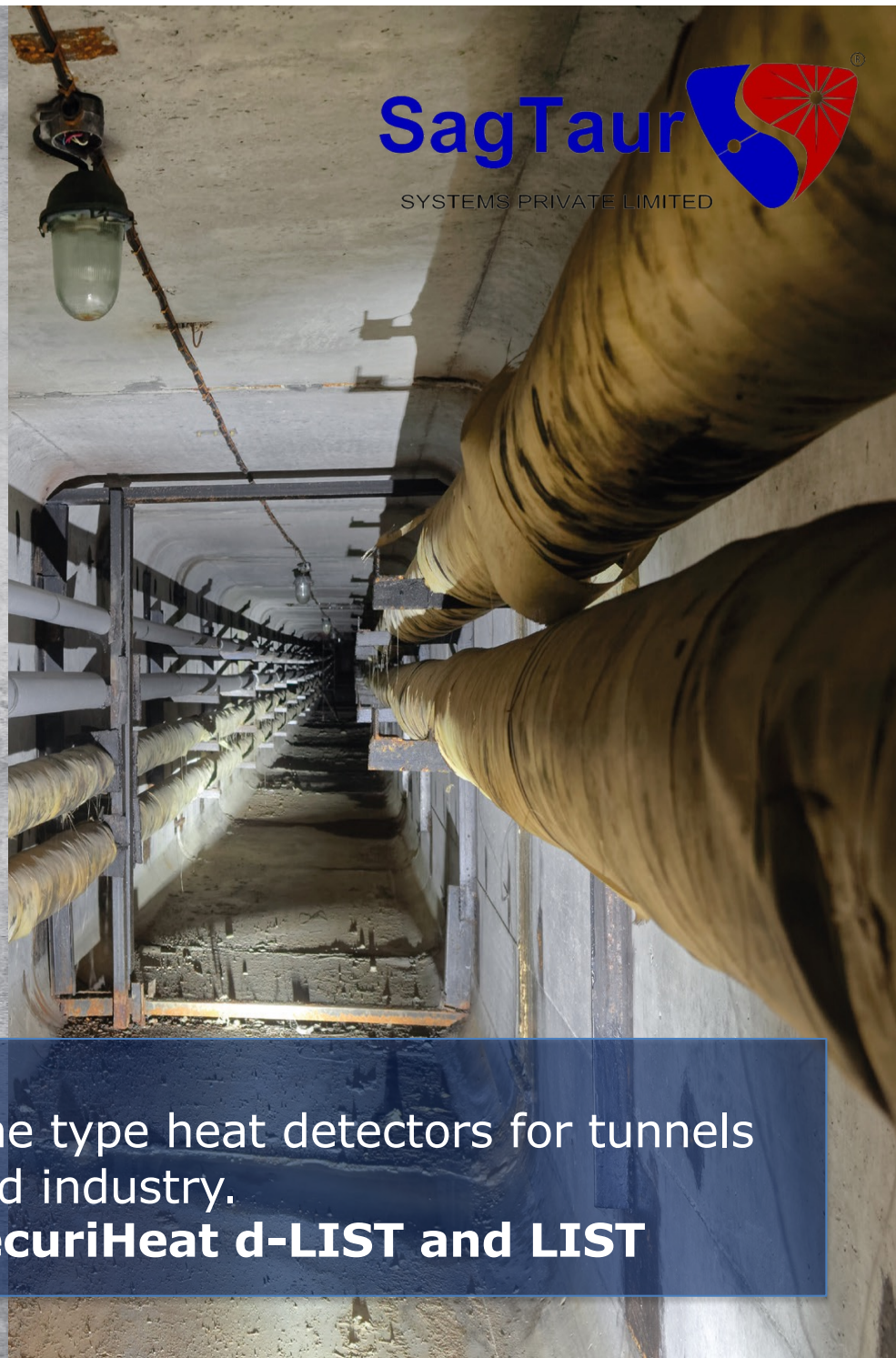
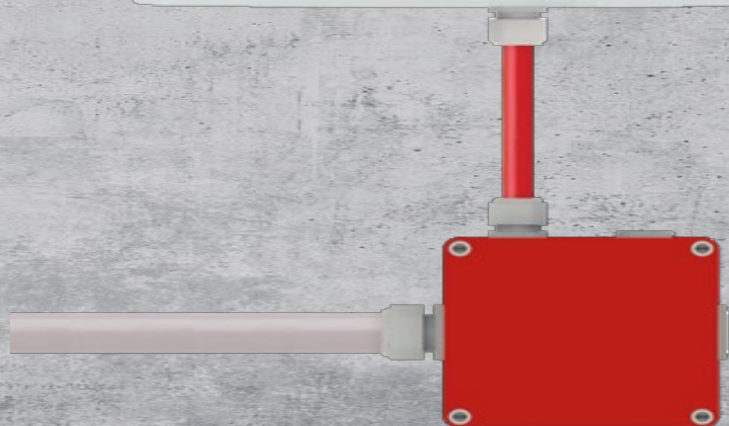
Oxygen & Heat.

The uniqueness of high-pressure water combines the suppression effect of gas and sprinkler systems.

As well as removing the oxygen like a gas a gas system it simultaneously cools the fire like a traditional sprinkler.

The cooling effect additionally lowers the risk of re-ignition.





Line type heat detectors for tunnels and industry.
SecuriHeat d-LIST and LIST

ADVANTAGES

Maintenance-free sensor cables

The sensor cables require no maintenance since there are no wearing parts.

Networking

Various interfaces (serial and LAN) are available in the controller for exporting the status and measurement data to management systems. The total length of sensor cable can be increased by networking several d-LIST or LIST systems.

Simple to repair

Sensor cables can be easily repaired, e.g. in the event of a cable defect.

TU 5/4 Cu **Copper**
Ø 5mm (outer)
Ø 4mm (inner)
in 5.5m rods or in rolls

TU 5/4 SS **Stainless Steel**
(in 6m rods)
Ø 5mm (outer)
Ø 4mm (inner)

TU 6/4 PTFE **Teflon** (in rolls)
Ø 6mm(outer)
Ø 4mm (inner)

Polluted Environment

- Room Monitoring
- Equipment Monitoring
- Vehicle Monitoring



Aggressive Environment

- Food processing industry
- Petrochemical Industry
- Waste Treatment
- Water Treatment



Installation Various fixings in plastic,
brass or steel





SecuriHeat d-LIST heat detector

SEC 15 cable

Sensor spacing 1 to 10 m

Diameter 15 mm

Operating temperature -40°C to $+85^{\circ}\text{C}$

Halogen-free

Aluminium sheath protects against environmental influences

Single sensor

Round or square sensors available

Material: stainless steel

For use with the CBO 15-ESD box only

SEC 20 cable

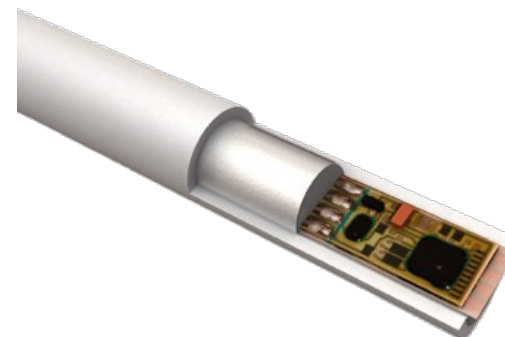
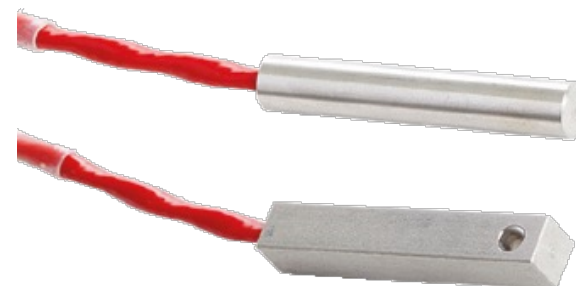
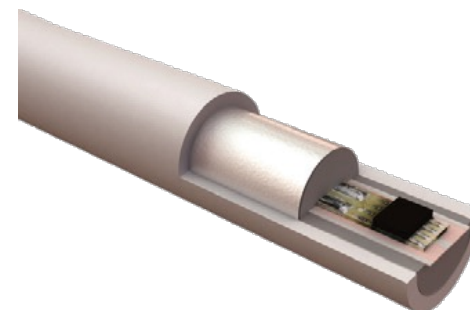
Sensor spacing 1 to 10 m

Diameter 18 mm

Operating temperature -40°C to $+85^{\circ}\text{C}$

Halogen-free

Aluminium sheath protects against environmental influences



Redundancy

Two LIST controllers can be operated as a redundant loop with two SEC 20 sensor cables.

Robust and accurate

The sensor cables are equipped with a sealed aluminium sheath as shielding against environmental influences. The cable sheath is also halogen-free and flame-retardant in accordance with DIN EN 60332. The measuring points capture the temperature with a resolution of 0.1 ° C. The sensor cables do not have to be recalibrated.

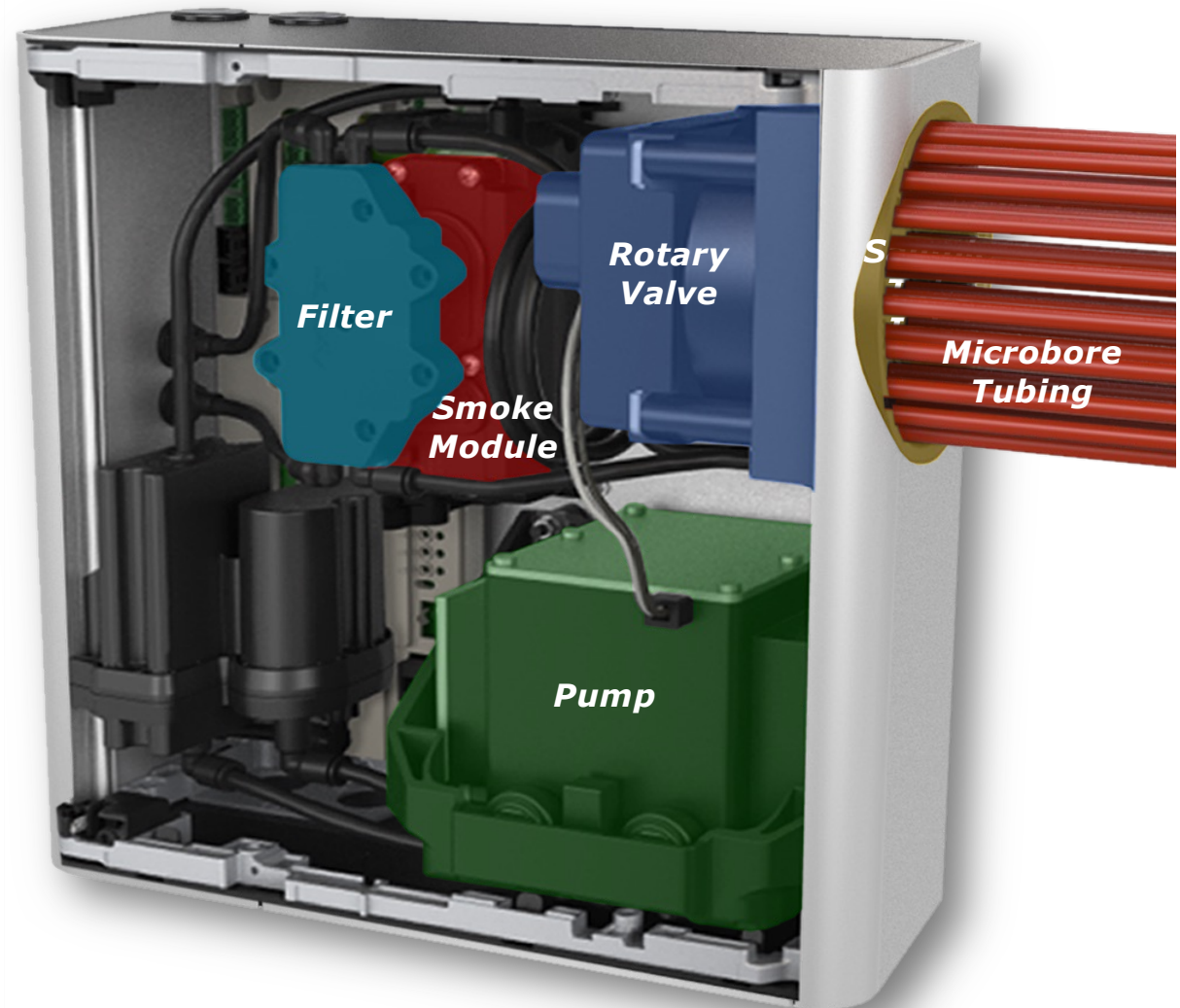
Cable derivations

Thanks to derivations, which are very easy to accomplish, the sensor cables can be tailored to the given conditions of the installation, such as emergency bays in tunnels.

Aspiration Smoke Detection

New Approach for Point Addressable Smoke Detection

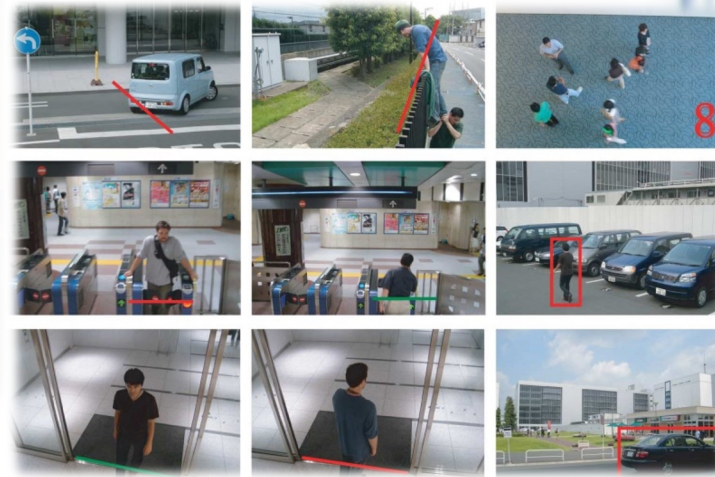
- Pinpoint addressability with end-to-end system integrity monitoring
- 40 addressable micro bore tubes with individual sampling points
- Automatic tube breakage and sampling point presence detection
- Variable length micro bore tubes, up to 100m



Video surveillance



Reduce scope for human error while detecting threats



- Security Monitoring
- Early Intrusion Detection
- Video Analytics



Access Control System



Technologies

- Magstripe
- Proximity
- Biometrics – Finger, Palm or Retina
- Smart Card



Scale-able from

- Two readers to 7000+ readers
- 50 to 500,000+ cardholders
- One facility to multiple facilities

Fully integrated with CCTV & BMS Systems



Building Management System



- Integrates with HVAC and building management systems
- Uses industry standard BACnet protocol
- Uses Readers and Monitor Points (Motion Detectors) to determine occupancy.



TREND



OUR CUSTOMER



ALEXANDRIA



THE PARK HOTEL



Indian Oil Corporation Limited



Vital Stationery



THE LEELA PALACES HOTELS RESORTS



GRAND MERCURE HOTELS AND RESORTS



BNP PARIBAS



Major infrastructure projects



Bangalore Metro rail



Chennai Metro rail (sole contractor who commissioned elevated stations & entire underground / Tunnel fire detection & specialized protection)



Calicut Airport



Why **SagTaur** ?

Reliable Team

Execution & Maintenance

Flexibility

Experience

Knowledge Sharing

Partner in Completing the project

100% customer retention

Certified/ Trained Engineers for Commissioning



NOTIFIER UNIVERSITY

Certificate of Factory Training

This is to acknowledge that

**Has successfully Completed
a Technical Training Course covering :**

NFS2-640, NFS2-3030

Expires December 21, 2010

ID#HFS-IND-5107-ONYXU-01



This Certificate is immediately rendered invalid should the employment of the recipient of this certificate with the above named company be terminated for any reason. This certificate is immediately rendered invalid should the NOTIFIER distributorship of the above-named company be revoked for any reason.

Instructor

Thank you

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