



Making Your Safety
Our Business



Company Overview



Incorporated **1999**



Over **170** employees



Turnover **£25m**



Markets we serve include Hotels, Hospitality, Commercial, Restaurants, Pub Chains, Stadia and Arenas



Fire Systems – Never leave sleeping risk without a fire alarm



Delivery Model

Global Fire and Security Systems covers the whole of the UK:

Engineers either Mechanically or Electrically biased, and are multi-product within their bias, and all carry out PPM and Corrective work types.



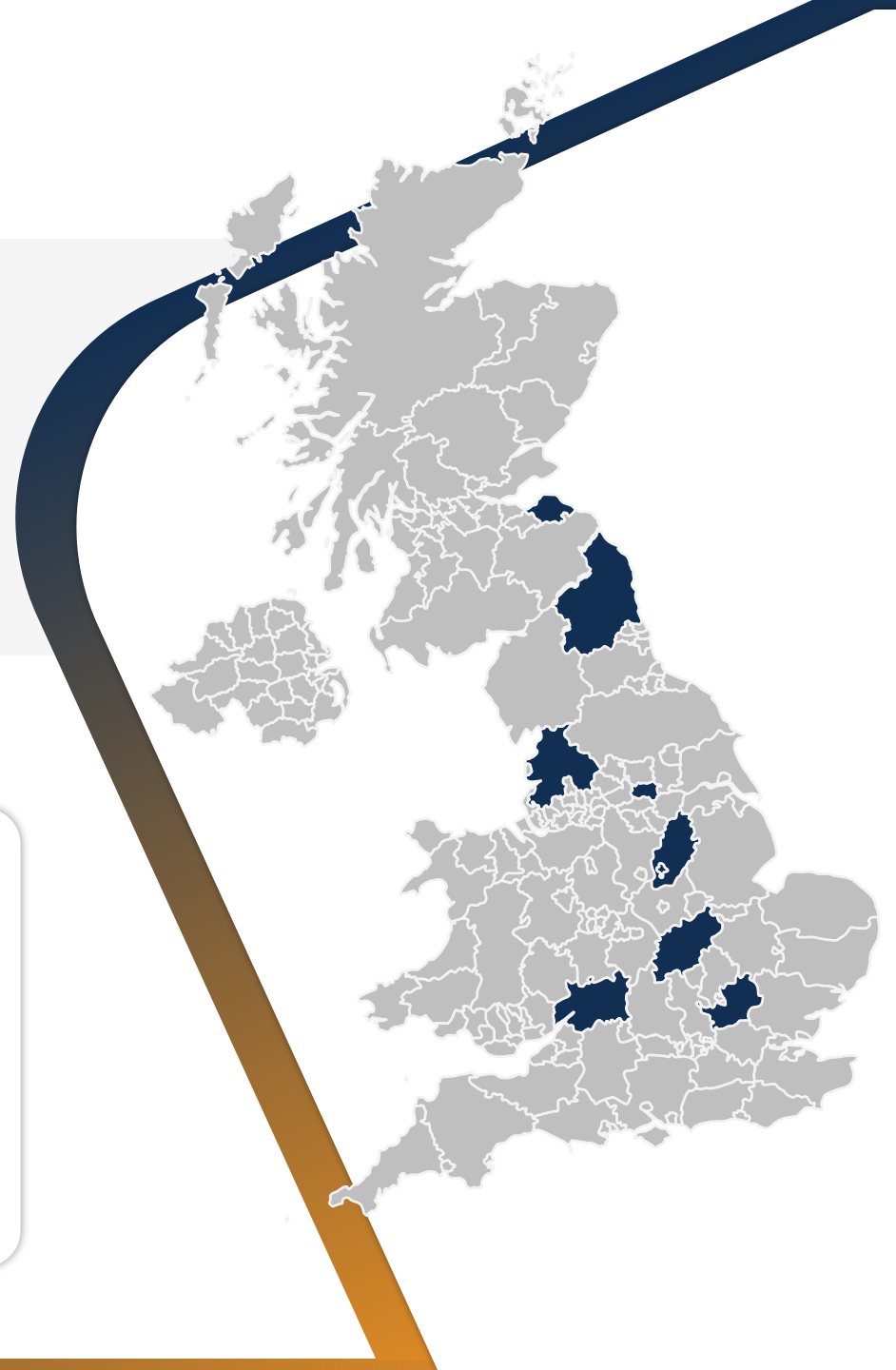
Offices:

- › Nottingham x 3
- › London x 3



Distribution:

- › Nationwide engineering coverage
- › Local stores (the dots depict the locations on the map)



Global Fire Systems Accreditations



BAFE SP203 – Quality Standards for Fire Detection and Fire Extinguishing



IFEDA – Quality within Fire Safety



BAFE SP101 – Quality Standards for Portable Fire Extinguishers



NICEIC – Electrical Engineering competent



BAFE SP206 – Quality Standards for Kitchen Fire Protection Systems



ANSUL – Accredited for R102 and Piranha Kitchen Suppression Systems



ISO9001 – Total Quality Management System



FIRAS – Passive Fire Protection certified



ISO14001 – Environmental Management System



SAFE – Contractor certified for Health and Safety



SSAIB – complete regulation and certification for Fire and Security Systems



CHAS – Gold



LPCB LPS1223 – Loss Prevention Standard of Fixed fire extinguishing for Catering Eqpt



Considerate Constructors

Product Supply Partners



Largest Notifier Platinum Partner in the UK



Gent Elite Distributor



Largest Advanced & Apollo Distributor



Largest Baldwin Boxall Elite Distributor



One of the largest Ansul R102 Installers in Europe

Honeywell | Integrated Security



Our Customers



Venues Of Significance



V&A Museum London



London Transport
Museum



Tate modern



County Hall London



O2 Dome



National Ice Centre



Harrods



Fortnum & Masons



Whole Foods



John Lewis



Trent Bridge



Lords cricket Ground



Wembley National
Stadium



City of Manchester
Stadium



Pride Park Stadium



Emirates Stadium



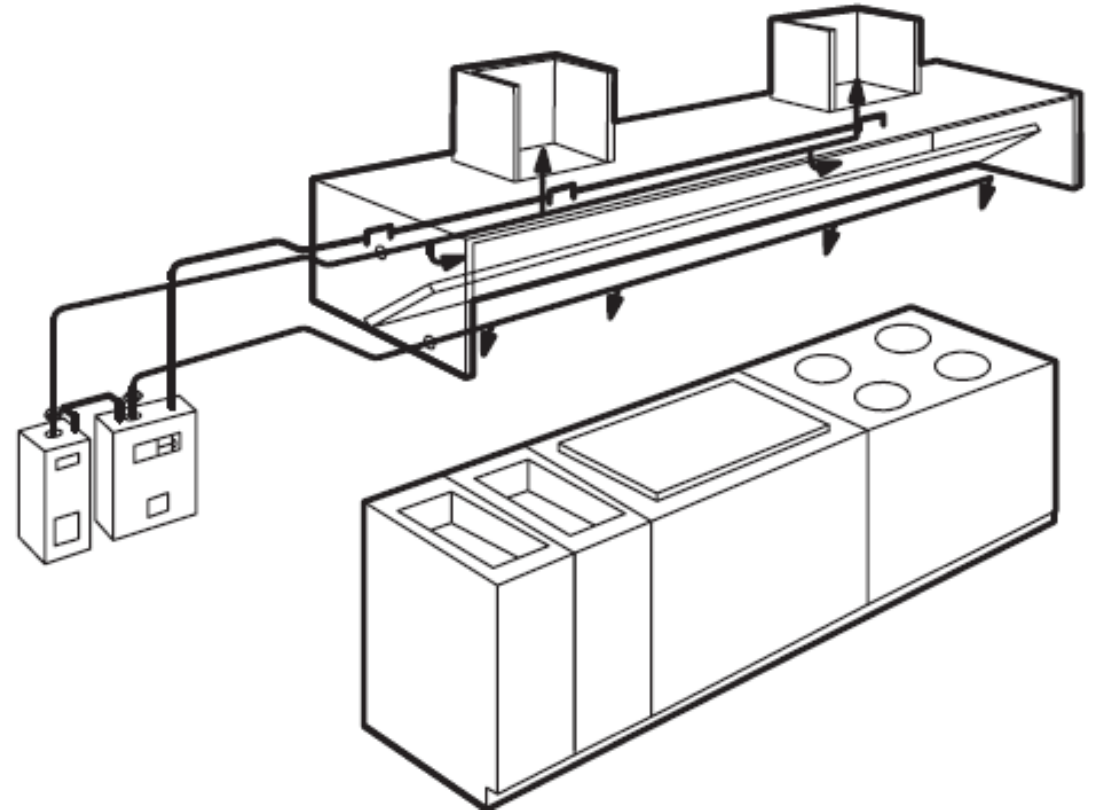
Twickenham Stadium



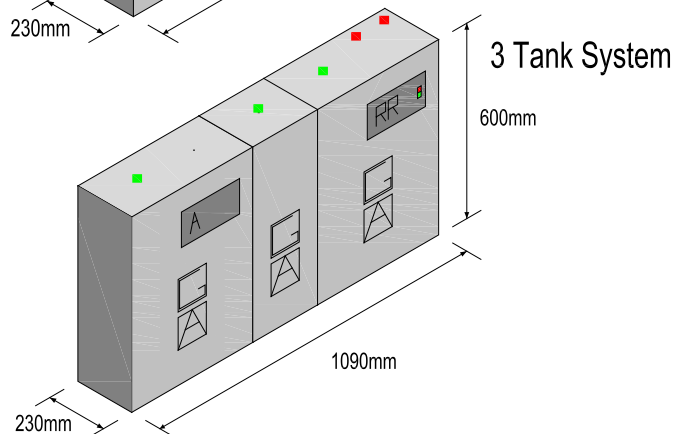
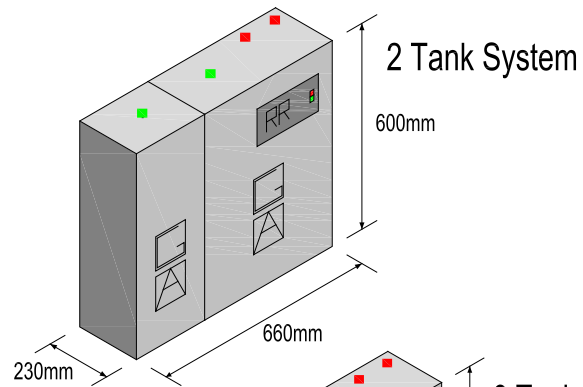
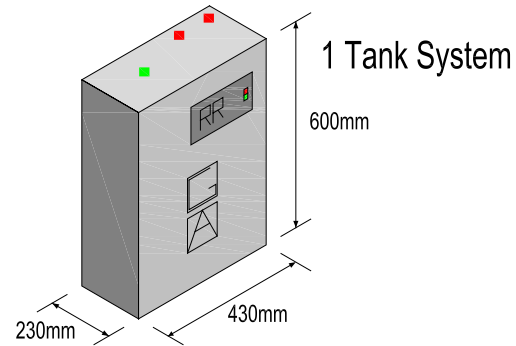
York Race Course

SYSTEM OVERVIEW

- Each system design is based on the extraction canopy and the type, size and quantity of risk appliances placed beneath.
- Fixed pipework extends from the main enclosures over the ceiling and into the extraction canopy.
- Discharge nozzles are installed into canopy plenum areas and aimed into any extract ducts.
- Nozzles are mounted above the cook line and aimed at specific risk appliances such as ranges, woks, griddles, fryers, bratt pans and more.
- In the event of fire, the system discharges automatically using strategically placed detectors or can be manually operated using the manual pull station.



System Sizes



1 Tank System

Commonly installed for protecting small wall extraction canopies with few risk appliances

2 Tank System

Commonly installed for protecting medium sized wall extraction canopies with risk appliances

3 Tank System

Commonly installed for protecting larger wall or island extraction canopies with more risk appliances

Typical Specification Content

Ansulex Wet Chemical Agent

The Ansul R102 System suppresses fire by discharging the wet chemical agent Ansulex in the plenum area, at the filters, cooking surfaces and into the exhaust duct system with a predetermined flow rate. When the liquid agent is discharged onto a cooking appliance fire, it cools the grease surface and reacts going through a process called saponification to form a soap like foam. This soap layer acts as insulation between the hot grease and the atmosphere, thus helping to prevent the escape of combustible vapour and starving the fire of oxygen. Should the low Ph Ansulex agent come into contact with cold surfaces it remains liquid and can be easily cleaned away.



Typical Specification Content

Storage Enclosures

The main component of each system is the Ansul Automan Regulated Release Assembly. This is used to discharge the Ansulex wet chemical agent in the event of activation. The Automan consists of a stainless steel agent storage tank, Nitrogen release cartridge and a discharge regulator all housed in a stainless steel enclosure. Should additional agent be required based on the size of the risk to be protected, it is housed in modular stainless steel tanks and enclosures. The enclosures are aesthetically appealing and blend in with kitchen equipment. The enclosures protect against tampering, damage and are easily kept clean.



Typical Specification Content

Discharge Pipework

Ansulex liquid is discharged from the main agent tank to the discharge nozzles via 15mm stainless steel pipe. All discharge pipe work will be polished stainless steel. This eliminates the possible blockages due to pipe corrosion.



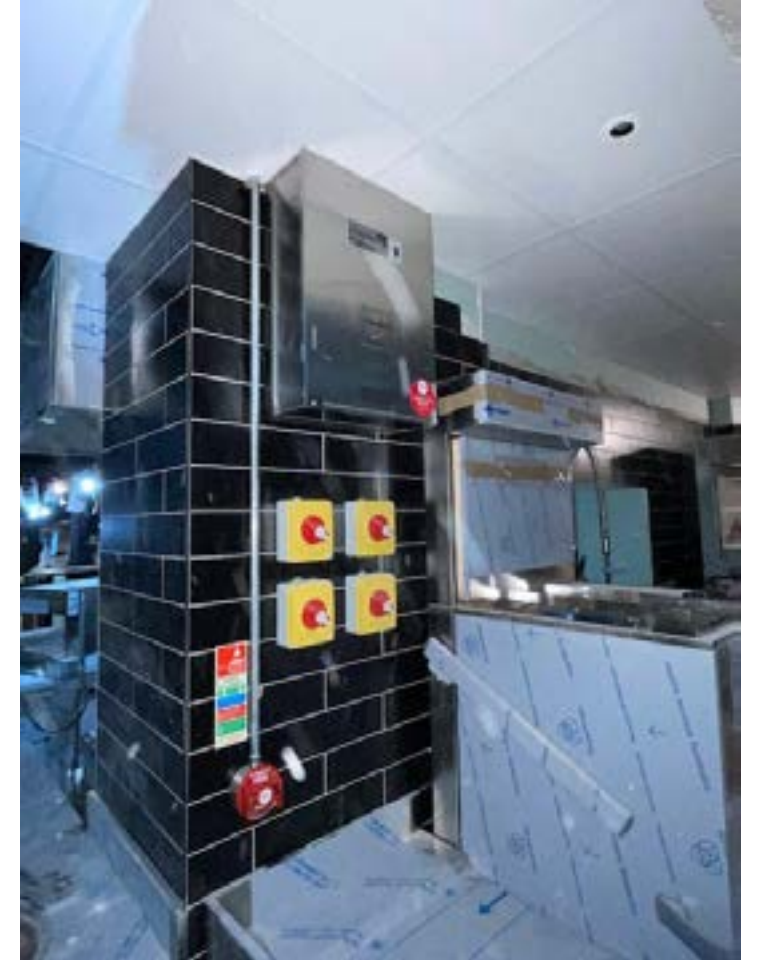
Automatic Discharge

Automatic discharge is provided by strategically placed fusible links. These links are available in varying temperatures. The links are connected to the Automan via wire rope held under tension within galvanised steel conduit and pulley elbows. When the link breaks at the specified temperature, the tension in the wire rope is released, activating the system.



Manual Discharge

The system may be manually actuated from a manual pull station. The manual pull station is connected to the Automan via wire rope. The manual pull station shall be sited in a prominent position near the catering equipment being protected but shall not be so close as to be inaccessible in the event of fire in the equipment.





Standards



UL300 Testing

- Type testing appliances of all sizes
- Testing of nozzles at varying heights
- 2 minute pre-burn – maximum intensity
- Saponification testing
- Re-engineered systems
- Testing of extraction duct nozzles
- Oil splash testing

LPCB LPS-1223

- Fixed fire extinguishing systems for catering equipment
- UL300 Approved

NFPA Standards 17

Standard for Dry Chemical Extinguishing Systems

NFPA Standards 17A

Standard for Wet Chemical Extinguishing Systems

NFPA Standards 96

Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations

EN 17446

Compliance criteria for extinguishing tests (7.2.1.1)

- Flames completely extinguished in one minute or less from the start of the discharge.
- After 10 seconds from the start of the discharge, flames no bigger than prior to the start.
- When the hazard is a deep fat fryer, wok or range:
 - No reignition during 20 minutes or
 - Until the temperature has reduced more than 30°C or
 - Below 333°C in case manually ignited at 363°C
- When the hazard is not a deep fat fryer, wok or range then no reignition during five minutes.
- After extinguishment of the fire, some fuel shall remain.
- The power source (elec or gas) and supply air fans must be isolated upon discharge.



CASE STUDY

Ansul discharge



08:00
FIRE BREAKS OUT ON
A FRYER



08:30
CLIENT PLACES
EMERGENCY CALL TO
GLOBAL



10:00
GLOBAL ENGINEER IN
ATTENDANCE TO RE-
CHARGE SYSTEM



13:00
RESTAURANT BACK UP
AND RUNNING – FOOD
BEING SERVED!



Case Studies

Restaurant in Reading

- Fire in a Reading Restaurant 7th Jan 2009
- Faulty Thermostat in Fryer
- Staff applied could not extinguish blaze
- Fire Brigade on site in 3½ mins
- Fire Brigade extinguish fire in 20 mins
- Kitchen Devastated



Pub in Nottingham

- Fire at a pub in Gamston, 7th Dec 2013
- Fire Brigade on site in 4 mins
- Fire Brigade put out the blaze but significant damage
- Pub re-opened at the end of 2014 after being re-built



WHY GLOBAL?



- Scheduled on-time planned maintenance visits
- Emergency response same day and night
- Systems reinstated **95%**
- Remote service and support
- Monthly performance reporting
- Trained and directly employed engineers
- Device testing identified each visit
- Robust CAD, small works modification procedure
- Technical support
- 24 Hours per day, 7 days per week, 365 days per year call out response
- Compliant certification



WHY GLOBAL?

Our service desk consists of dedicated account managers and administrators

Mentor 'CASH for Windows' call logging is used to keep track of all customer events ie faults, routine maintenances, and any other requests

On-call application provides real-time integration to the Field engineering team via the engineer's PDA

Our service Management software is seamlessly linked to our SAGE accounts system to generate all required documentation

All dedicated account managers and administrators are trained on PRONETT & other web based 'portals' for service management software applications

Escalation procedure in place for any incident generated



WHY GLOBAL?

Benefits for Ecclesiastical Customers

- Dedicated Account Manager
- Design and FOC Surveying Service
- Preferential Discounted rates
- Engineer accessibility 365/24/7
- Maintenance Contract – 10% discount at time of install
- 5 year warranty



Watermist Fixed Fire Suppression System

Sauna Protection

Definition of watermist

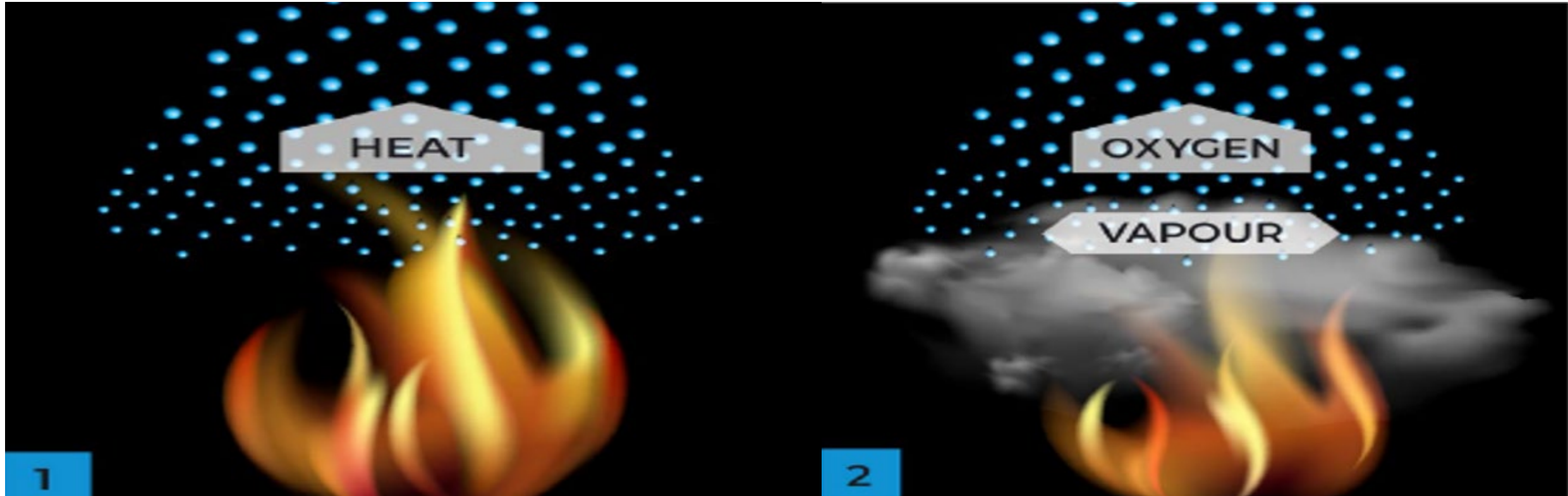


- NFPA ;
- As a water spray for which Dv90 for the flow weighted cumulative volumetric distribution of water droplets, is less than 1000 microns at the minimum design operating pressure of the watermist nozzle.
- BS8489 ; & CEN14972
- Water spray for which Dv90 less than 1mm measured in a plane from the nozzle at its minimum operating pressure.
- Note Dv90 Is the drop diameter such that the cumulative volume, from zero diameter to the respective diameter, is nine tenths of the corresponding sum of the total distribution.

Watermist Removes Both Heat & Oxygen

Cooling the heat

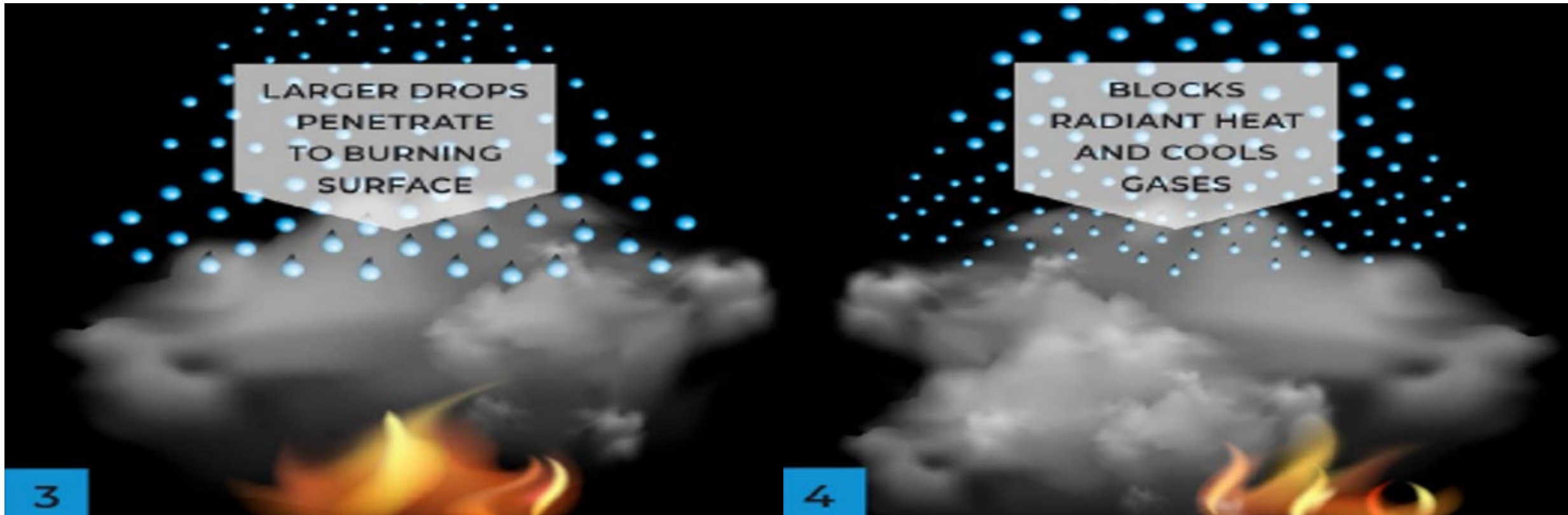
Wetting the fuel



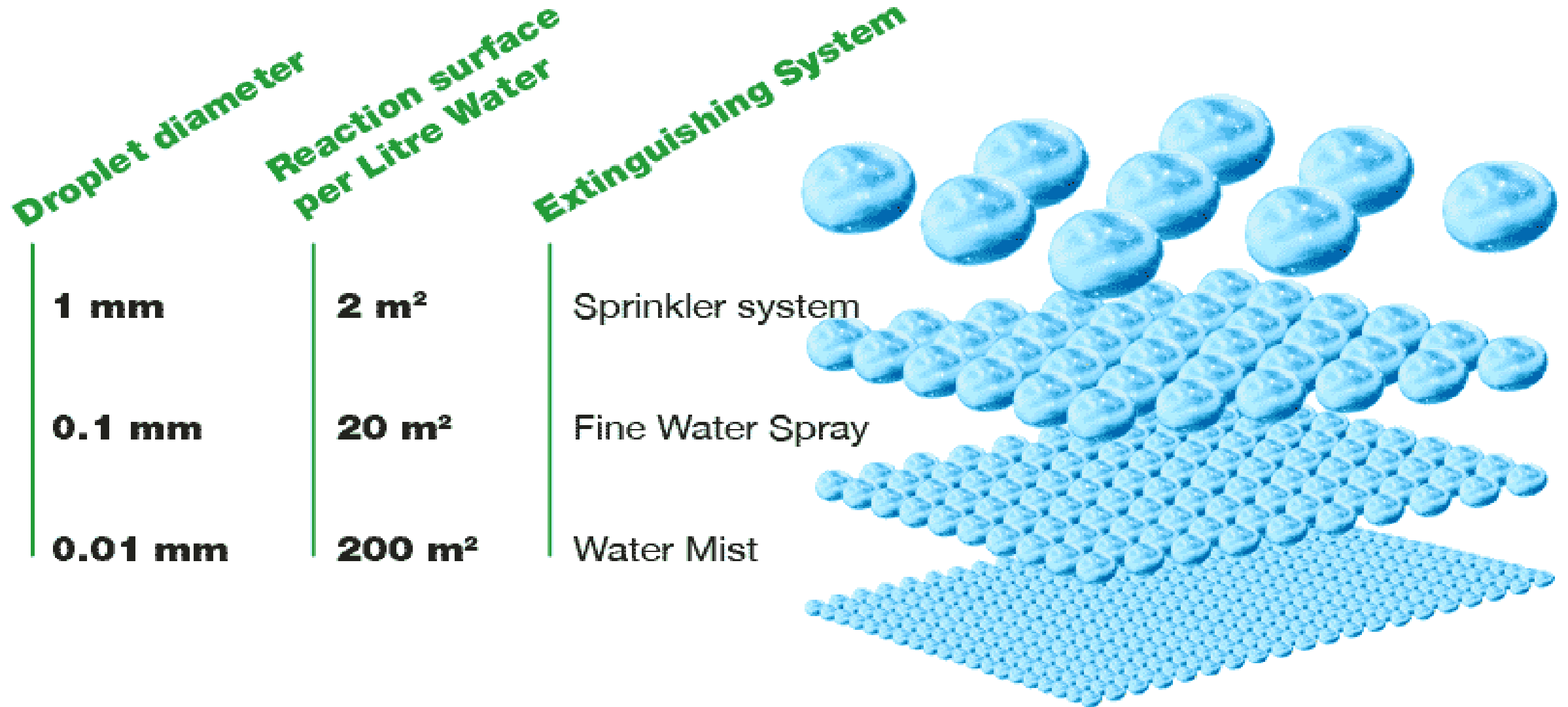
Entrainment & Radiant Heat Blocking.

Displacing the Oxygen

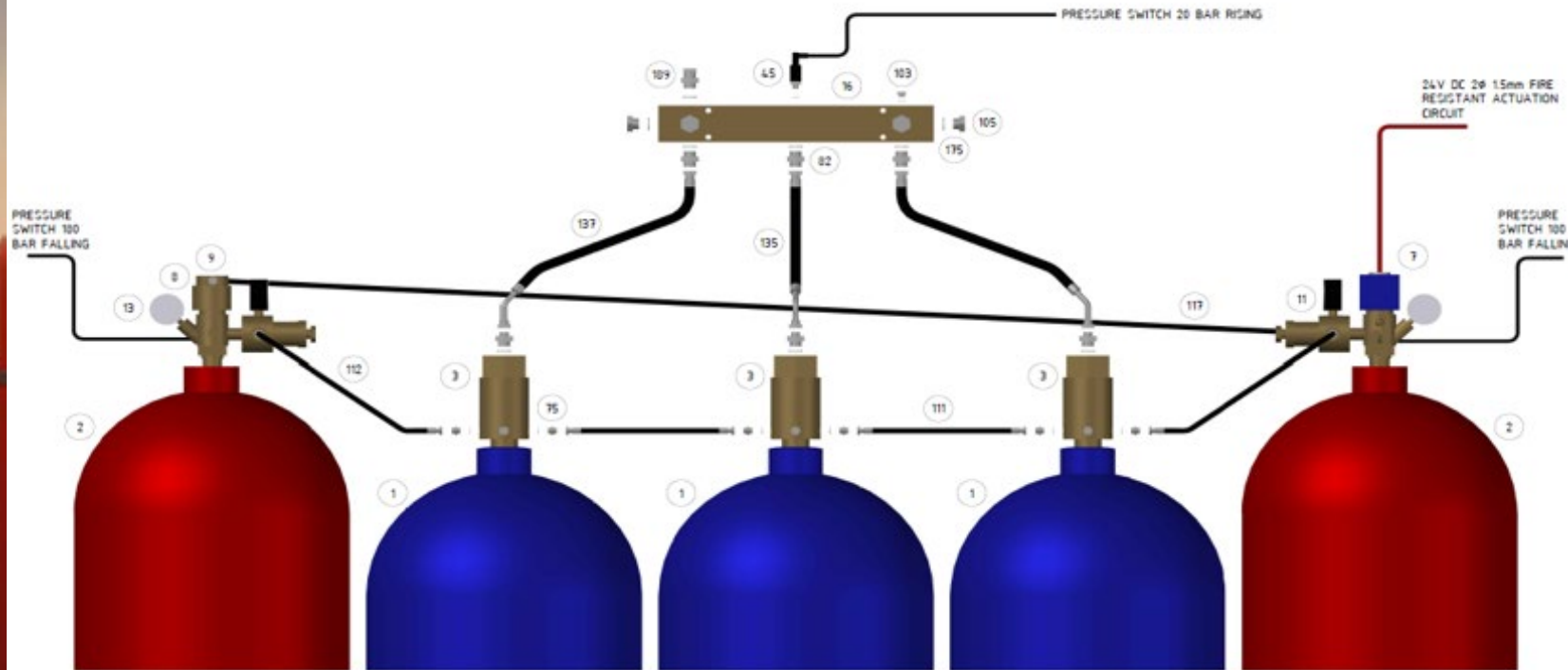
Smoke Control



Total Surface Area



Watermist Engineering HP



Nitrogen Cylinder & Transport Caps

- Nitrogen Cylinder
- 80l
- 200 bar
- 15 Degree C
- Seamless
- Working pressure of 230bar
- Test Pressure 345 bars
- European TP Directive
- π -Marked



Water cylinder valve

The water cylinder valve consists of two nitrogen ports, (one in, one out) and an outlet port. The outlet section of the valve is service removable. The ½" outlet is connected directly to the pipework for a single cylinder system or a manifold, for multiple cylinder

The quiescent storage pressure of the water cylinder is zero.

To ensure that the system operating pressure of 100 bar is attained quickly, the internal valve mechanism has been tested to operate at no more than 80 bar. At this point, the valve opens and water discharges through the system nozzle(s).



High Pressure Valves

Indirect High-pressure valve

Closed Bulb



Electric Nitrogen

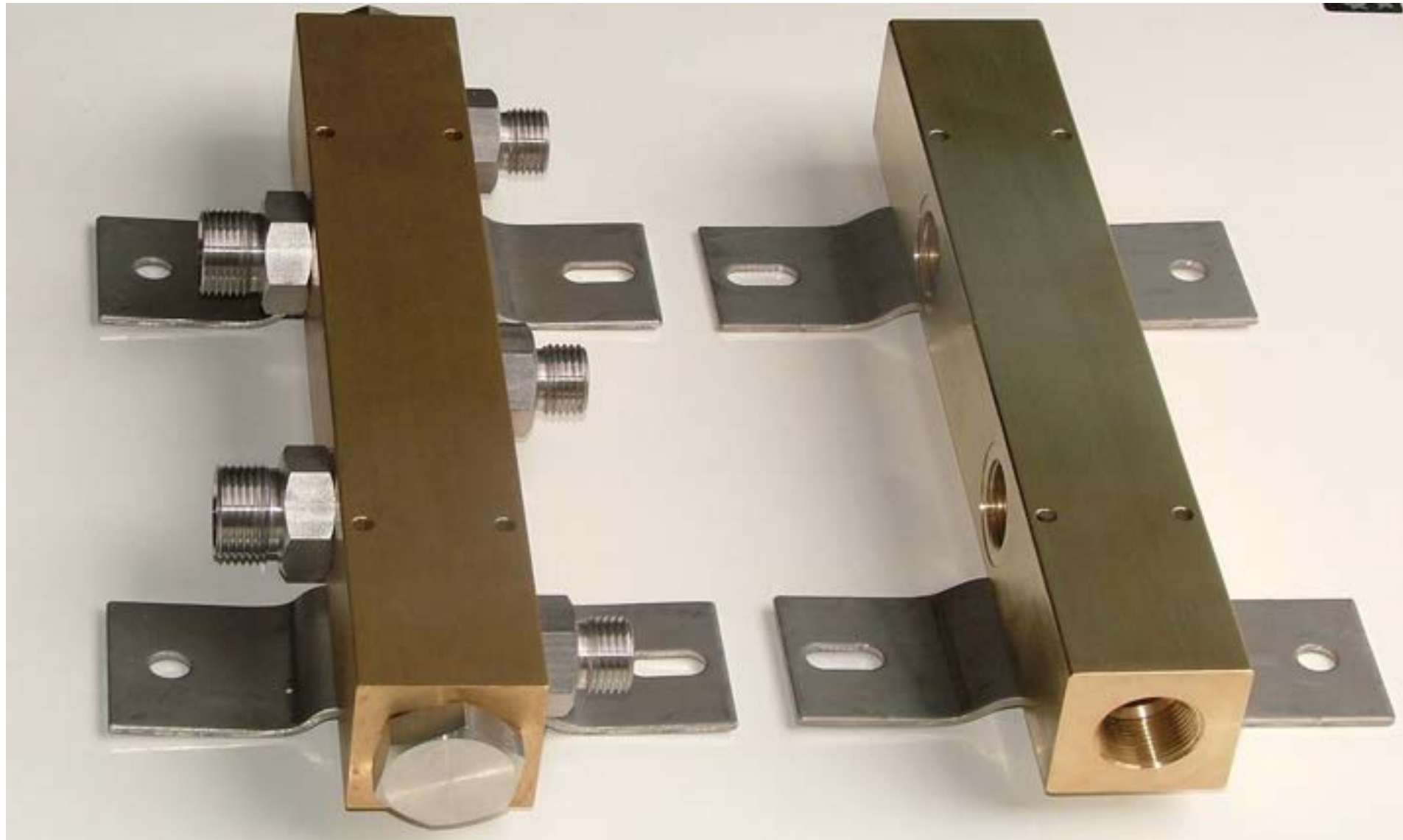
Valve Open Deluge



Nitrogen Regulator seat on IHP Differential Pressure Valve



High Pressure Water Manifold



How To Determine The Cylinder Quantities

- Size of the area to protect m²
- Spacing
- No of nozzles
- Flows 6.4lpm / Nozzle
- Discharge duration Total Dis
- Total water requirement
- Divide by water amount
- Cylinder configuration

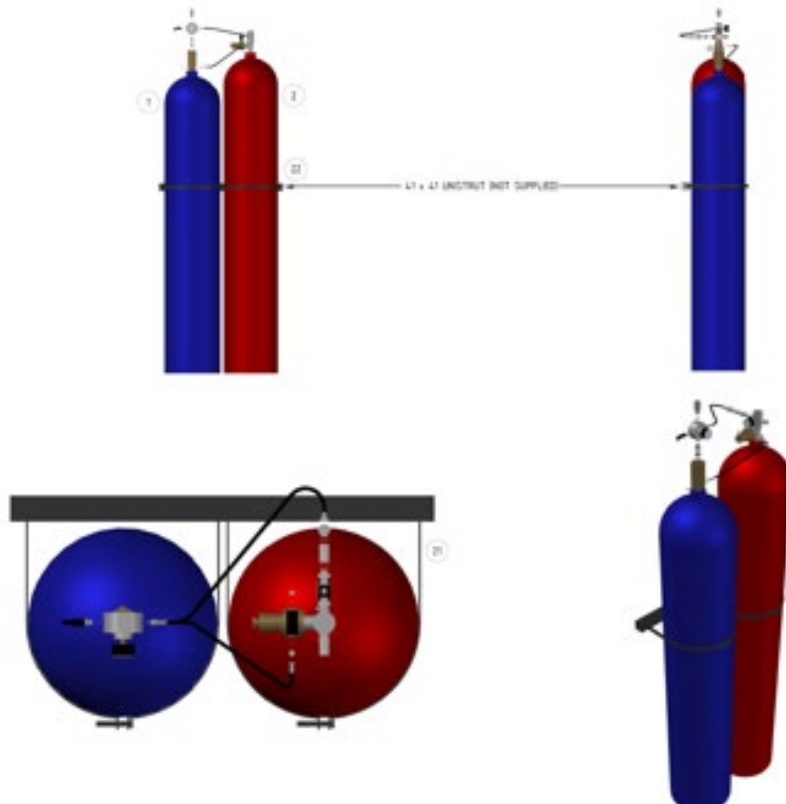


- $19.5\text{m} \times 3\text{m} = 58.5\text{m}^2$
- $3\text{m} \times 4\text{m} 1.5\text{m from wall}$
- 5
- $5 \times 6.4 = 32\text{lpm}$
- 10mins
- $32\text{lpm} \times 10\text{mins} 320\text{lpm}$
- $80\text{l} (320/80) = 4$
- 4 Water x 2 Nitrogen.

System sizes

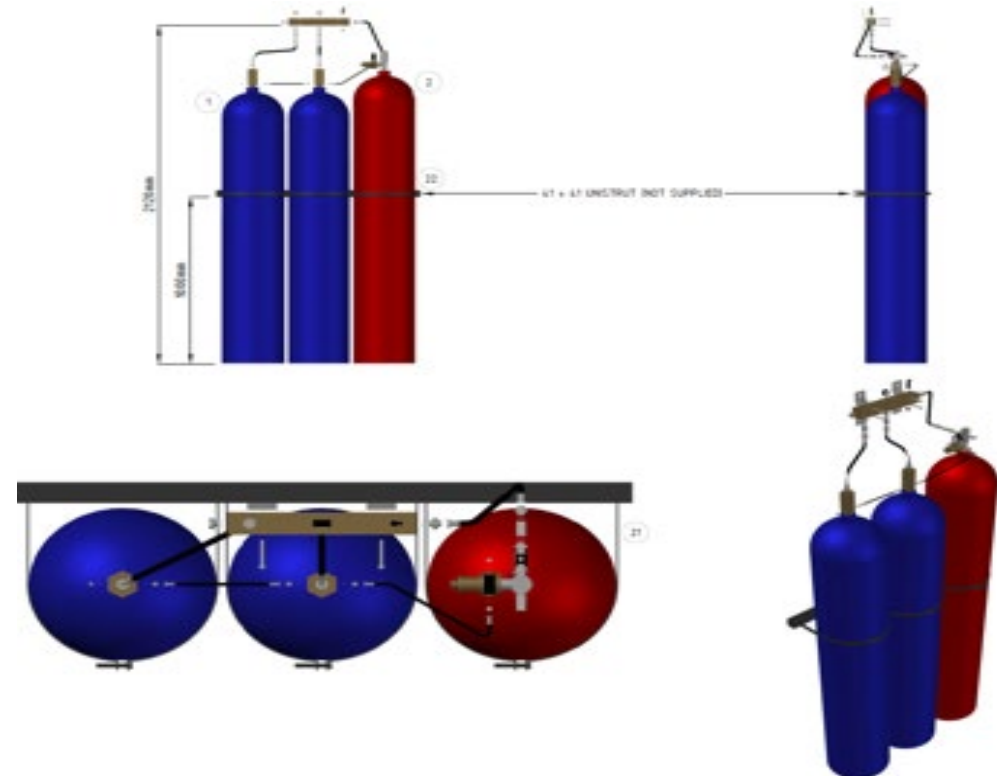
1+1

- This system comprises of 1 water and 1 nitrogen cylinder with a single nozzle protection.
- Protects up to 9m²



2+1

- This system comprises of 2 water and 1 nitrogen cylinder with a dual nozzle protection.
- Protects up to 20m²
- This size system would also cover 2 saunas.



Pump based Watermist



ICO

- The ICO system has been designed for domestic and residential property protection.
- ISO9001 tested
- BS:8458:2015 residential standard
- System can be adapted with a Fogex nozzle to protect saunas with a 10min run time.
- Will require mains power & water supply.



Other systems

Gas Suppression



FirePro



