BECAUSE WE BELIEVE IN THE VALUE
OF MEASURED PROTECTION.

THE MOST ADVANCED SYSTEMS FOR
SECURITY AGAINST THE MOST DELICATE HAZARDS

RG SYSTEMS W-FOG

W-FOG System

for the protection of

INFLAMMABLE LIQUIDS

PLACES WITH SPECIAL DANGER

The installations and industries that use inflammable liquids in their day to day working are numerous and of distinct characteristics: ranging from the automotive sector to refineries, including all kinds of industrial plants, processing, chemical or off-shore platforms, the use of liquid that combusts easily is widespread.

The activities presenting more hazards are those involving the following agents:

PAINTS AND SOLVENTS

FUELS

PETROLEUM DERIVATIVES

LUBRICANTS

CLEANING PRODUCTS

ALCOHOL

At the first instance it should be clarified that inflammable liquid is one whose minimum temperature at which its vapours are burned in case of fire is less than 37.8, and it is a liquid fuel if it exceeds 37.8.

The enclosures in which these are found are particularly dangerous since they burn easily, with very rapid growth and exponential heat release. The vapors also produce explosive atmospheres and, overall, there exists a very high real hazard of contagion to other areas or materials, with the subsequent generation of secondary fires that raze the building.

Dense and toxic smoke hinder the evacuation, while at the same time, due to the unpredictability of the progression of fire, evacuation routes are obstructed and may also trap the occupants.

WHY TO USE WATER MIST

INFLAMMABLE LIQUIDS

Consequently, the priority in designing extinction for these risks is to act quickly, cooling the room with an agent that does not affect the personnel and facilitate the eviction. In addition to the following the water mist RG W-FOG incorporates all these qualities:

HIGH COOLING CAPACITY:
it has an increased specific heat, which, together with the minimum size of the droplets, rapidly reduces the temperature of the bulb.

LOCAL INERTIZATION:
the vapor produced locally displaces oxygen and dilute the vapors, hindering its combustion.

PULLING OF SMOKE:
the droplets that do not evaporate clarify the atmosphere and decant toxic particles, thereby reducing inhalation.

Abrupt onset and explosive growth due to combustion of fumes.

Immediate action and functioning 24/365

Microdroplets under pressure: quickly reach the focus, overcoming obstacles.

Great rate of heat release explosive atmospheres.

Cooling of the flame

Very effective and great cooling capacity: most of the discharged water evaporates in speed.

Hazard of contagion and / or spread or spilling of product

Preventing the spread.

Blocking the emitted radiation, preventing spread.

Toxic fumes, hazard of trapping of the personnel.

Remove contaminants

Smoke washing and pulling of particles in suspension. Extinguishes without soaking, harmless, non-reactive.

Change of stored material

Multipurpose protection

Flexible and reconfigurable equipments. Internationally certified.

PROTECTION REQUIREMENTS IN INFLAMMABLE LIQUIDS FACILITIES.

The need for rapid action to avoid serious damage and affections to personnel does not only reduce the spectrum of fit agents, but proves really effective in these hazards:

In this regard, water-based spray type sprinkler systems effectively protect the structure, but its activation is late and heavily floods the rooms with little evaporation and falls quickly because of its size.

Other agents with high cooling and / or inertizing capacity does not have the effect of atmospheric clarification that speeds up exit and prevents poisoning. Similarly, by acting on the free space, they can reach hazards concentrations meant for the personnel in moderately full enclosures. The water mist, however, facilitates the eviction and is completely harmless in case of entrapment.

FEATURES

RG-Systems guarantee the suitability of its W-FOG equipment with detailed studies and components approved by international renowned certifying bodies.

The main advantages over other clean agents lie in:

APPLICATION: water mist does not require sealing the rooms and tanks in order to act with guarantee. The response is immediate.

HARMLESSNESS: the water is atomized and discharged in high pressure to reach the flame, absorbing its heat and evaporate quickly without residues.

CLEANING: disappears with mere ventilation. Furthermore, the micro droplets that do not evaporate actually agglutinate and decant the corrosive suspended particles, preventing from extending further and damaging other equipment.

PERMANENCE: The fog produced remains in colloidal suspension, blocking and preventing radiation re-ignitions.

COMPONENTS + INSTALLATION EXAMPLES

BATTERY CYLINDERS:

is used in medium-sized stores. Containing an agent as determined by calculation and nitrogen actuating cylinders in ratio of 3: 1. By including all the equipment necessary for its operation, these are used in the protections with difficult access or requiring autonomy.

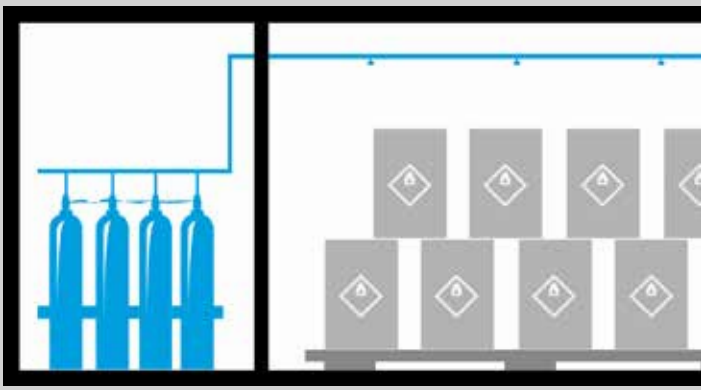
PUMPING UNIT:

made up of diesel and / or electric pumps, they are used in larger size hazards and water demand. These are positive displacement cascade opening, depending on demand. They can be:

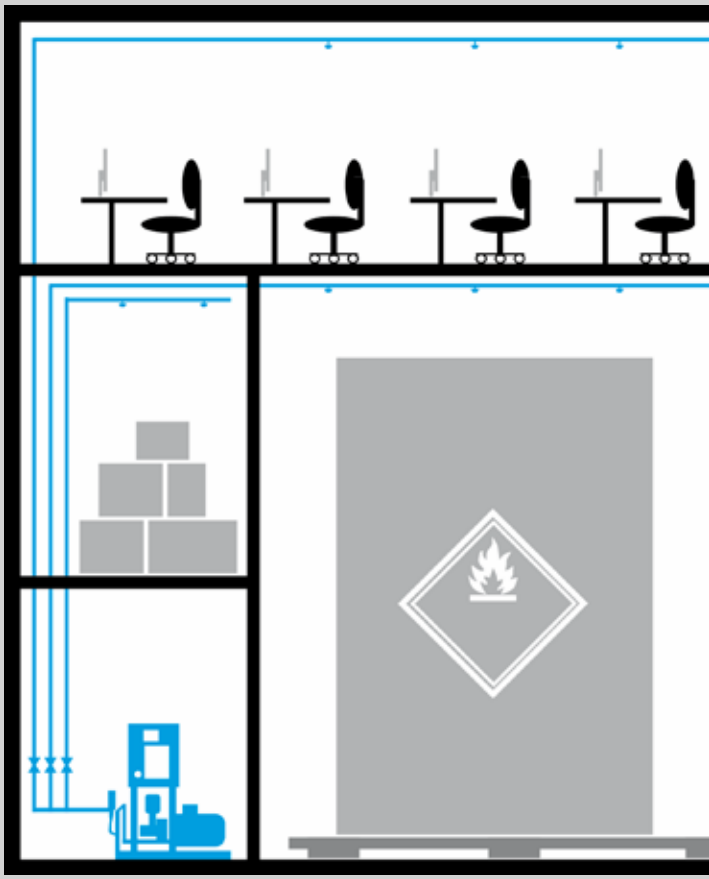
- ***Electrical RG W-FOG UAP***
- ***Diesel RG W-FOG UAPD***
- ***Mixed with diesel and electric pumps***

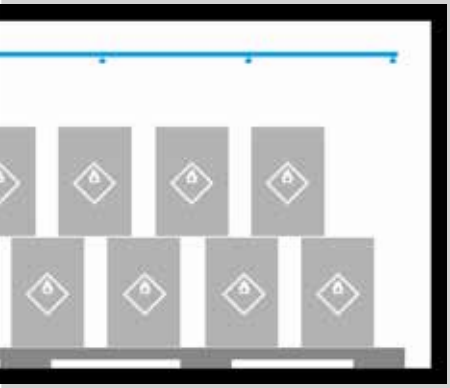
They are completed by a water tank, filter, filling system, valves and fittings for connection.

SMALL STOREHOUSE SKETCH



LARGE STOREHOUSE SKETCH



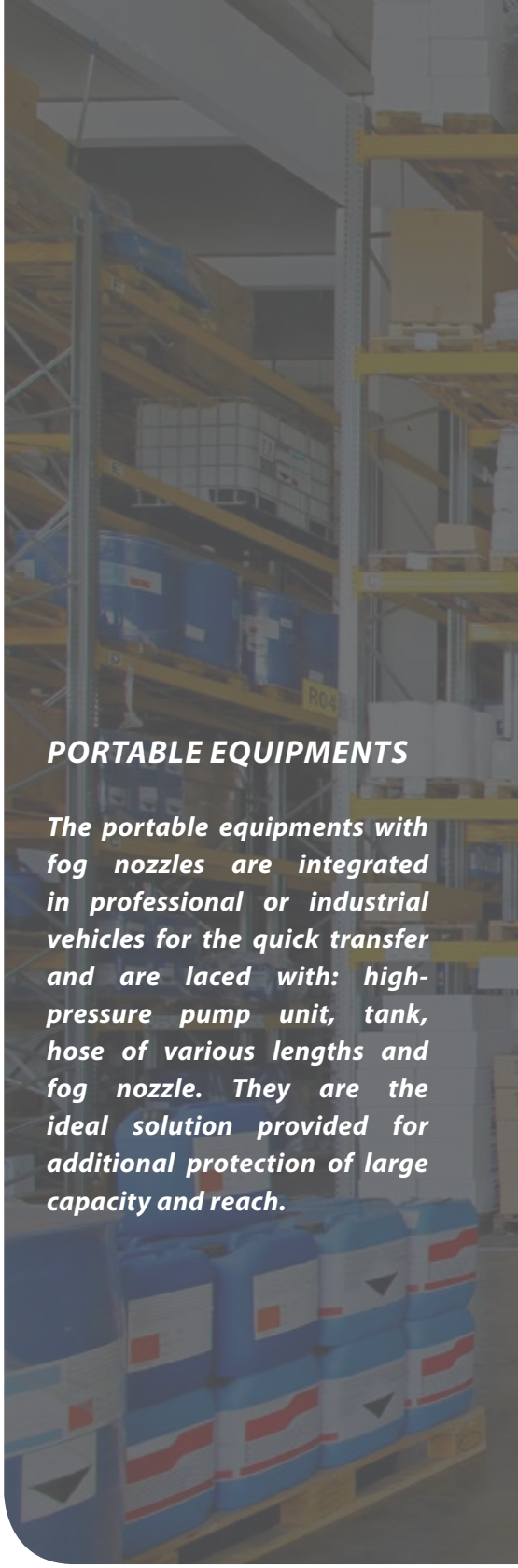


NOZZLES:

Open Nozzles are used for local application or surfaces not more than the design area. While being closed, the activation will be thermal due to the breaking of the bulb calibrated on the affected area (wet pipe and pre-action). Prevent unexpected or accidental discharges, at the same time, its action is longer, focused to control the fire and prevent its spread.

DIRECTIONAL OR CONTROL VALVES:
allow the simultaneous protection of liquid storages facilities and rooms of other uses with a single device. They are of stainless steel with electric actuation, pressure switch for controlling the flow and manometer control.

BLOCKING VALVES:
facilitate the isolation of sections of the installation during the maintenance tasks, replacement in case a leak is detected. The drive is manual



PORTABLE EQUIPMENTS

The portable equipments with fog nozzles are integrated in professional or industrial vehicles for the quick transfer and are laced with: high-pressure pump unit, tank, hose of various lengths and fog nozzle. They are the ideal solution provided for additional protection of large capacity and reach.

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