BECAUSE WE BELIEVE IN THE VALUE
OF MEASURED PROTECTION.

THE MOST ADVANCED SYSTEMS
FOR SECURITY AGAINST THE MOST DELICATE RISKS.

RG SYSTEMS W-FOG

# W-FOG SYSTEM

for the protection of

# FILE ROOMS

# AND

# LIBRARIES

# WATER MIST

## IN FILE ROOMS

File rooms are small variable warehouses used to conserve documents of various nature in an orderly and categorised way. In general, similar to libraries, they store paper, although they can also contain objects, audiovisual material and other valuable items.

They can also be used for historical or current registries, and their purpose is to preserve information in media that is highly vulnerable to fire, which requires protection that is safe, clean and does not leave residues.

Because of solid and liquid materials' high susceptibility to fire, water mist acts effectively against all common hazards present in these spaces:

**FIGHTS THE HIGH FIRE LOAD INHERENT TO THESE USES WITH THE MINIMUM POSSIBLE AMOUNT OF WATER**

**MINIMIZES DAMAGES CAUSED BY MASSIVE WATER DISCHARGE (SPRINKLERS)**

**FLEXIBLE DESIGN BASED ON SIZE**

The main objective is to guarantee the safety of the occupants and, at the same time, protect the archived content. This property can be highly valuable for different reasons: historical (ancient sources), documentative, operational (corporate processes) or strategic (service failures: companies, institutions, hospitals)

# WHY USE RG W-FOG

## IN FILE ROOMS AND LIBRARIES

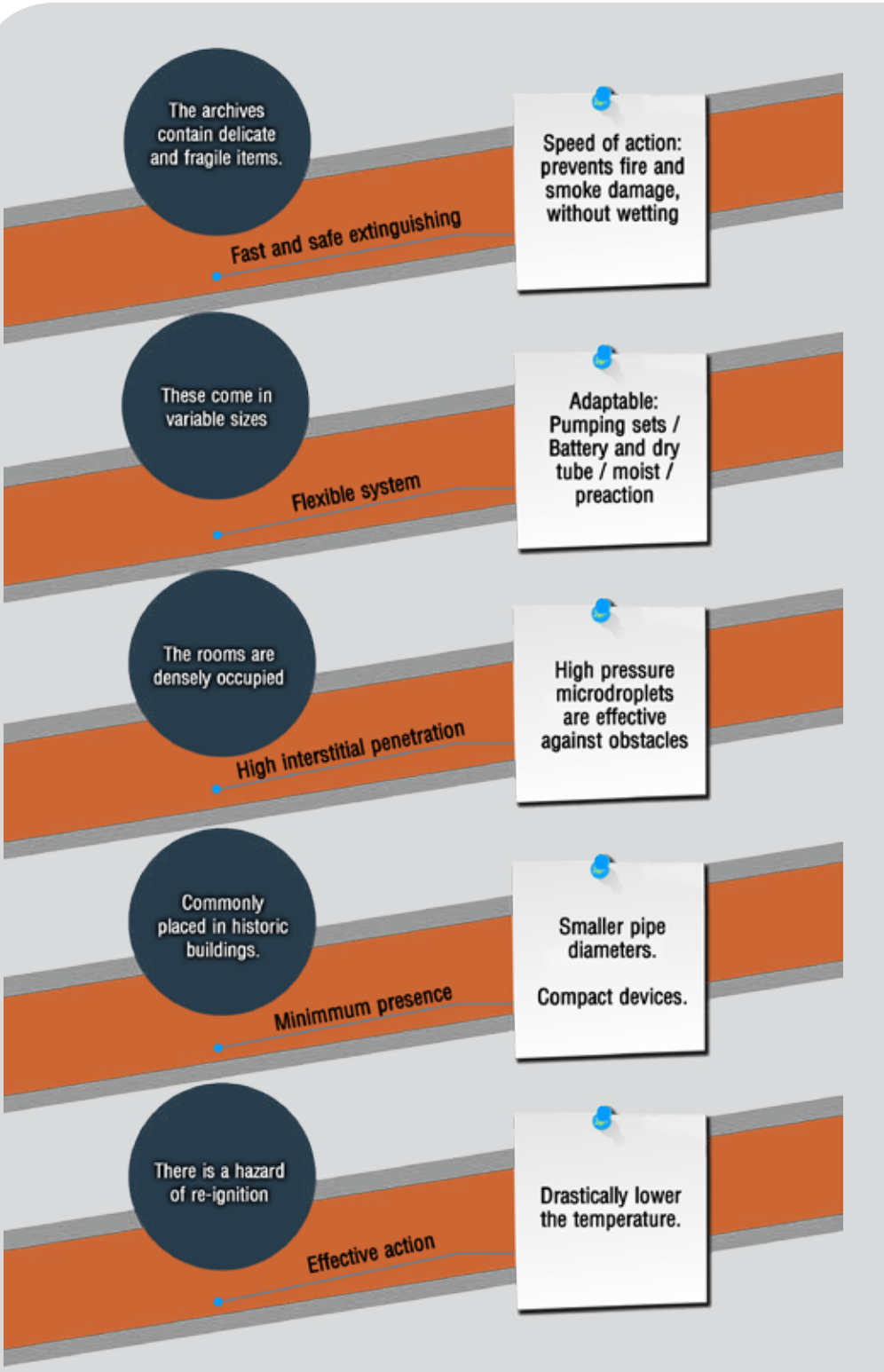
**RG W-FOG** incorporates the known extinguishing properties of water with the most advanced technologies to provide a **optimised extinguishing** based on:

***Small droplet size:*** *the surface area of the activation is incremental, achieving a* ***maximum rate of heat absorption.***

***Reduction in equipment: 90% less water is required,*** *with which the storage, piping and systems are significantly optimised.*

***Production of vapour,*** *which creates an obstacle on contact for the oxidizer ($O_2$) and the fuel.*

*Quick activation:* ***minimises damage to the documents and avoids structural damage to the building.***



# CAUSES OF FIRE

The scope and virulence of a fire can be assessed based on its possible sources, characterised by:

## CONTENT

The stored material has a high fire load due to the large concentration of paper and other combustible elements (wood, fabric, varnishes, etc.).

## CHARACTERISTICS

of the rooms, which could be:

Old or historical buildings, typically made of wood, little or non-existent installations, that have to adapt to the current requirements without altering its equitable value.

Large storage rooms: present obstacles, shields and gaps that other systems cannot reach.

Private or restricted access facilities with low staff presence, which emphasises the need to have independently-activated automatic systems 24/7, 365.

## EASE OF SPREAD

Ineffective or non-existent partitioning.

Blind spots in the distribution of the agent.

Late detection.

Elevated fire load because of the accumulation of combustible material.

# SPECIFIC PROTECTION NEEDS

Content that is generally stored is documentation and other dry objects that need a source of external heat to burn. However, if this occurs, there are storage characteristics (compact blocks, robotic racks, etc.) that make them very vulnerable to fire: small paths and spaces between shelves are ideal for the rapid spread of fire.

It is necessary to avoid damage from the fire and the agent used: systems such as sprinkler systems (flood the room) and other "dirty" agents (that leave residues or generate harmful byproducts) can cause more damage than the fire itself.

**The water mist uses a minimum amount of agent that acts directly on the flame: when it evaporates, it cools it and keeps it from growing or spreading.**
**It does not produce contaminants, and it spreads the particles, with which collateral damage is avoided. The fine mist is cleared with ventilation and it doesn't soak the property.**

## UNIQUE EQUIPMENT TO PROTECT AN ENTIRE BUILDING:

RG W-FOG equipment allows the simultaneous protection of various archives thanks to the use of control valves. Also, both the different storage areas and their respective uses: hallways, consultation rooms, staff rooms, machine rooms, surveillance and security rooms, etc., are all covered by the same pump unit and water tank are minimal (up to 90% less than sprinklers).

RG W-FOG SYSTEMS

***AN APPROPRIATE DESIGN IS KEY FOR RAPID ACTION AND EFFECTIVENESS THAT MINIMISES DAMAGES.***

# INSTALLATION EXAMPLE

## COMMITMENT

### PROJECT

Design and calculation of needs from phase one, according to applicable regulations and real-world testing.

### INSTALLATION

Our advanced technology allows for a reduction in diameter and faster installation. Data sheets are provided to facilitate assembly.

### MAINTENANCE

RG-Systems offers installation and maintenance manuals, as well as spare parts and incident support.

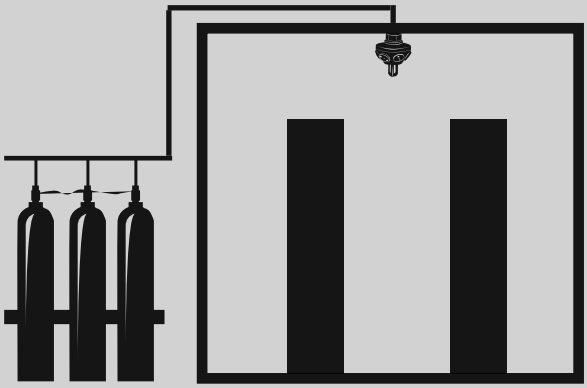
### TRAINING

RG-Systems offers courses and technical support documentation so that project technicians and installers can become familiar with the latest advancements in design, regulations and installation.

## ACCUMULATOR GROUP
### for small risks

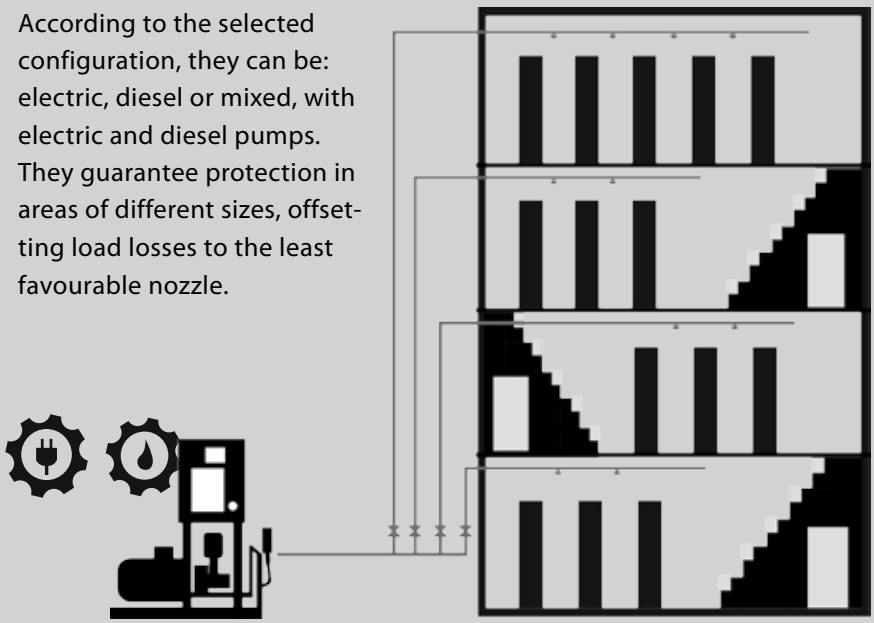
RG W-FOG UAC systems are used in small- to medium-size environments.
Bottles are available in 40, 67, 80 or 140 L, depending on the hazard. Activation is made:

- electrically
- manually
- pneumatically
- pyrotechnically



## PUMP UNIT
### for large risks

According to the selected configuration, they can be: electric, diesel or mixed, with electric and diesel pumps. They guarantee protection in areas of different sizes, offsetting load losses to the least favourable nozzle.



# TYPES OF INSTALLATION

## Preaction:

The piping is wet up to the control valve and then dry after. It has an electric and thermic double activation: the detection opens the affected subsystem and the heat blows the nozzles fuses closest to the area at risk.

It avoids false discharges (accidental, vandalism). It is an ideal option for protecting risks that are especially fragile or valuable, over all in historical buildings, which are invaluable, in places where the water could damage wooden structures during false activations.

## Wet piping:

The network remains full and pressurized thanks to the jockey pump. If the temperature rises, the fuses in the nozzles that are closest to the source blow, releasing the agent directly over the source. No electrical detection required.

## Spray deluge:

The discharge is only initiated if the detection system is activated. Then the accumulator unit or pump unit can be relied upon. The nozzles are open, so they are all activated simultaneously.

**The protection can be complemented with manual methods for low agent consumption and maximum fire fighting performance. WATER MIST FHCS FAVOUR MAXIMUM AND RAPID ABSORPTION OF HEAT AT THE SOURCE WITH A REDUCED AMOUNT OF WATER, WHICH HELPS TO MINIMIZE DAMAGE TO FILES AND STORED DOCUMENTS.**

**With the simple handling by the staff present, even without prior training, they make a fine suspended mist that is long-lasting, which spreads particles and embers, while at the same time blocking the thermal radiation form the operator and clearing the atmosphere to facilitate the evacuation.**

## GUARANTEE AND CERTIFICATIONS

All of the products have approvals and suitability statements according to trials in internationally-recognised bodies.

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