

BECAUSE WE BELIEVE IN THE VALUE
OF PROTECTION TO FIT YOUR SPECIFIC NEEDS

THE MOST ADVANCED SECURITY SYSTEMS
FACING THE MOST DELICATE RISKS



W-FOG System
for the protection of

PRISONS



WATER MIST

FOR PRISONS

Prison facilities are generally medium to large-size compounds with a high occupation density and large number of people with restricted mobility as well as very specific security and evacuation limitations.

Any accident that occurs has a social and media impact. So, RG W-FOG makes possible immediate action against fires as it is harm-free to people (no activation delay is necessary to evacuate occupants) and does not require air-tightness for trap closures, ventilation, doors or windows.

The high-pressure water mist system action controls the fire immediately, keeping the conditions compatible with the presence of occupants inside.

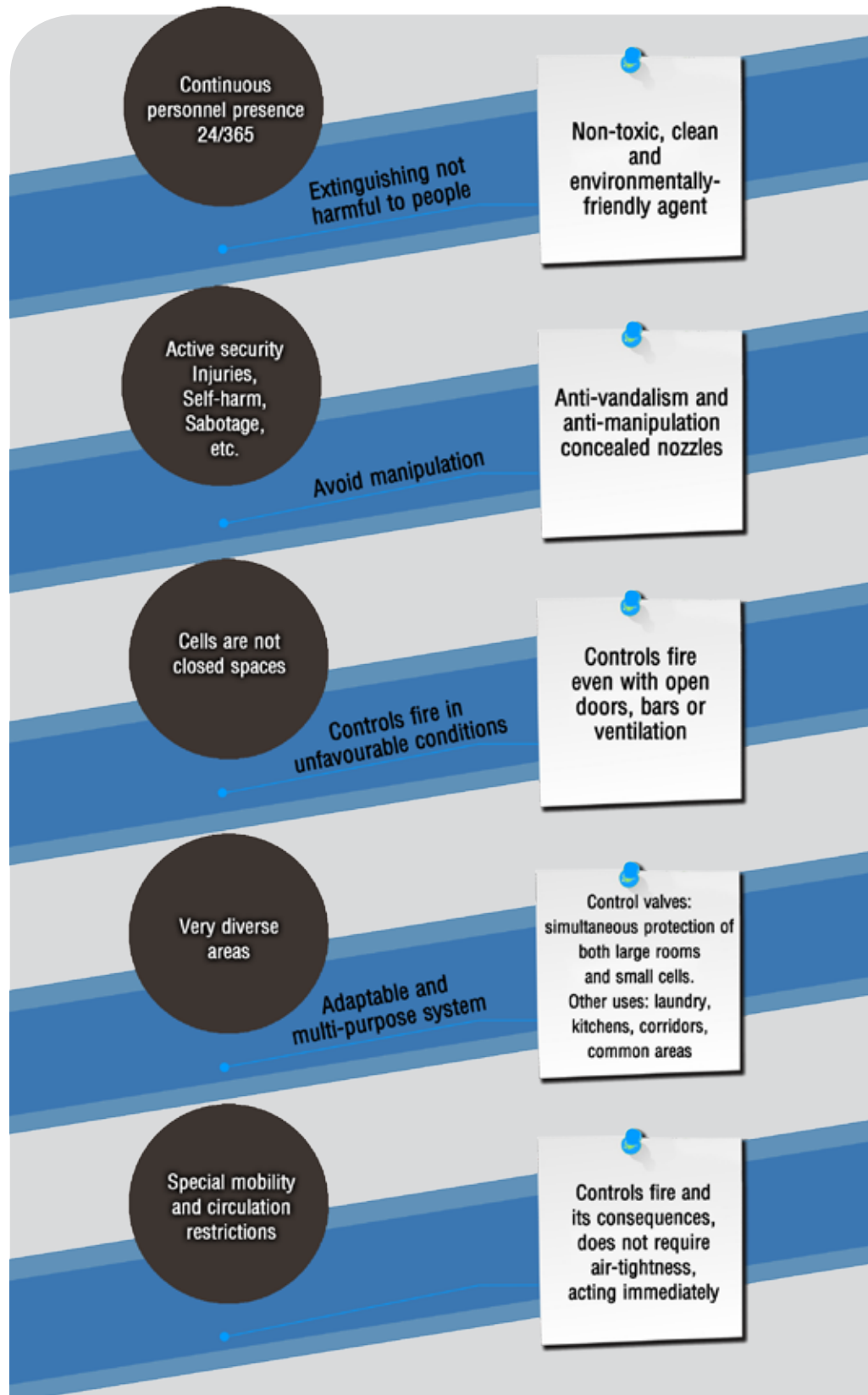
This means more time to organise the evacuation and control the fire until the fire-fighters arrive.

Likewise, it improves the conditions under which people exit with better visibility and a lower perception of danger due to the reduction of smoke and heat. It also includes specific devices for these facilities such as anti-vandalism nozzles designed to prevent improper manipulation so they cannot be sabotaged or removed for use as weapons or manipulated to be used for hooking or hanging.




WHY USE RG W-FOG IN PRISIONES

*The equipment
RG Systems W-FOG
adapt to the needs of
each location where
used. A single pump
unit can simultaneously
cover many different
rooms for reduced
costs.*



CAUSES OF FIRE IN PRISONS



Due to the large number of services associated with any prison facility, there are many causes and sources of fire and they are found throughout the entire building. The sources are usually located in:

CELLS

KITCHENS

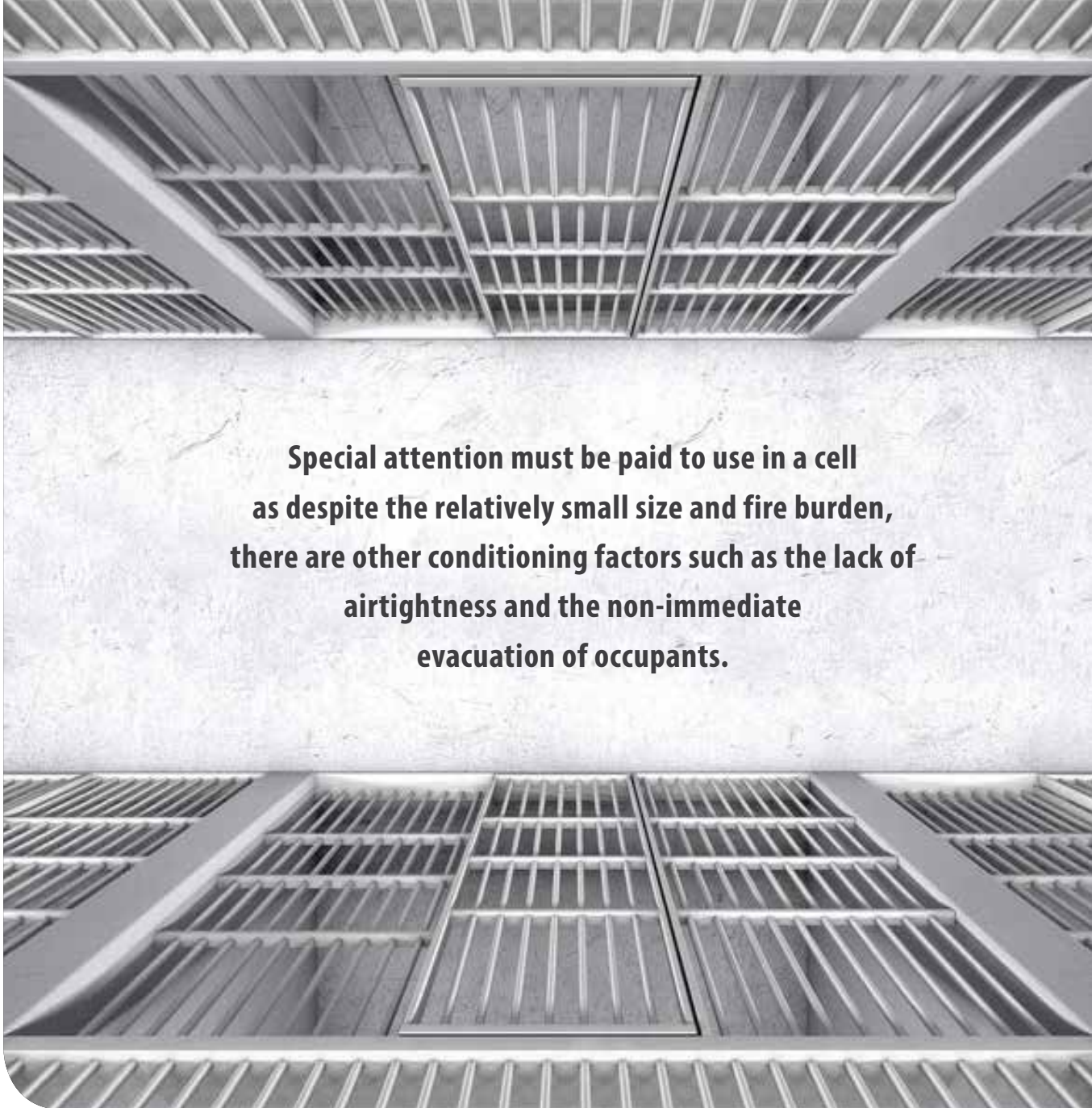
MACHINERY AND INSTALLATIONS

COMMON AREAS

And, to a lesser extent, in **RUBBISH ROOMS**, **LAUNDRY ROOMS**, etc.

To ensure safety in the most unfavourable conditions and create conditions that are compatible with life in the affected facility, the high pressure used for the RG W-FOG system can reach long distances and even different floors without significant head loss. The anti-vandalism nozzles have even been successfully tested to protect large-size facilities with a minimal water flow rate demand, which guarantees safe protection and immense efficiency.

BENEFITS FOR EVERYONE



Special attention must be paid to use in a cell as despite the relatively small size and fire burden, there are other conditioning factors such as the lack of airtightness and the non-immediate evacuation of occupants.

FOR OWNERS

- The overall costs are lowered because of the lower consumption (up to -90%) because of the much more effective action.
- The impact is small because the equipment and pipes are less voluminous.
- Damages upon activation are minimised: from fire because of the quick action and from water because there is no massive flooding (sprinkler).
- The repair time until return to activity is shortened.

FOR USERS:

- Evacuation is done under the best conditions because the air is cleared without any drop in oxygen.
- It is a harmless, environmental-friendly, clean and complete inoffensive agent to occupants.

FOR INSTALLERS

- The pipes are of a smaller diameter and lower weight: more manageable.
- Less maintenance tasks.
- The agent is easy to acquire with broad availability and comprehensive technical support from **RG SYSTEMS**.

EFFICIENCY

SECURITY

COSTS



COMPONENTS

Cylinder Batteries:

Comprised of nitrogen-propelled water bottles.

Pump units + tanks:

- electric RG W-FOG UAP
- diesel RG W-FOG UAPD
- mixed, with electric and diesel pumps

The valves are key as the execution is simplified which lowers costs and maintenance:

Control valves:

They guide the agent to the risk area, protecting the affected and nearby cells without the rest of the building or sector being affected.

Cut-off valves:

They make for easier maintenance all while blocking any discharge if accidentally activated or vandalised.

Safety valves:

To relieve overpressure within the system to maintain safe values.

Direct Tees:

They reduce the space needed for installation.

Fire Hose Cabinets with Water Mist:

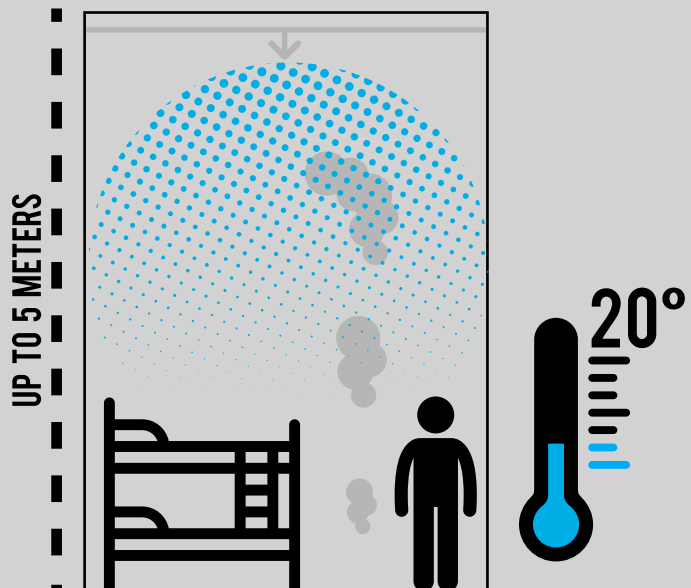
They enable manual activation to control the source with minimal damage to systems (no flooding) all while protecting operators with the thermal radiation screening found in the suspended micro-drops.

APROBACIONES

RG W-FOG water mist systems come with the most prestigious sector systems approvals:



WITH RG W-FOG



The nozzles are the key element as they are within prisoners' reach and, therefore, must be specially designed:

High Pressure Water Mist nozzles for use in prisons:

RG Systems offers open diffusors with a retractable design, which keeps them hidden and protected to prevent unauthorised removal, handling, vandalism and hanging of other objects as an anchoring point. This prevents their use as a weapon to hurt others or for self-inflicted wounds. If the system is activated, it sticks out into the room for discharge.

Tested as per french CNPP protocols for this specific use, they enhance the features of sprinkler systems by maintaining a certain temperature and keeping damages to a minimum:

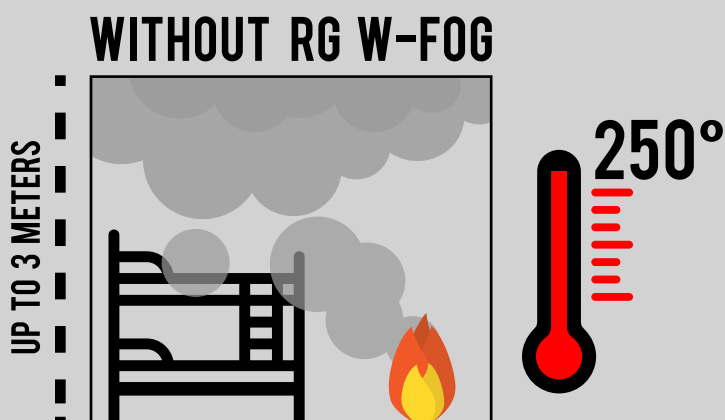
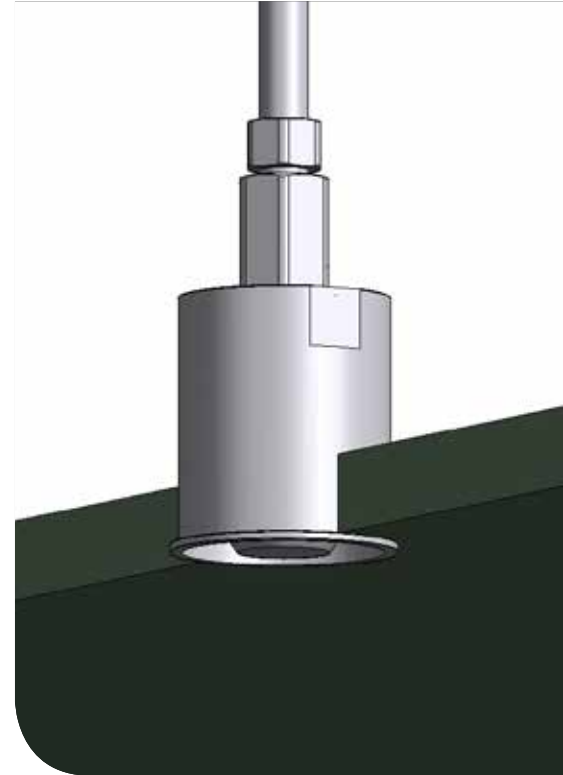
- temperatures lower than 50°C in 45-bar discharges, and below 20°C at 78 bar
- optimal oxygen levels (18-20%) and CO₂ (1-2%)
- slight effect on furniture (including after 3 min of open pre-combustion prior to activation)
- tests under the most unfavourable conditions: 5 m in height with the door open

In summary, it guarantees control over a fire with minimal consumption and damage (beds, tables, etc.).

Moreover, the discharge flow rate is significantly lower than any other model between 14-18.5 lpm, making it the lowest on the market for the most unfavourable, penalising conditions mentioned: height (5 m) and non-airtightness.

Thus, it can protect several adjacent cells with very little water consumption to prevent the spread of fire and hot gases.

Plus, it comes in several different models: wall-mounted, ceiling-mounted and door-mounted; with a decorative finish in different colours.



OPEN FIRE IN A CELL

>250°C
above
1.5 m in height

OPEN FIRE WITH RG W-FOG

< 20°C
throughout
the facility



C. Alfoz de Bricia, 4 P.I. Villalonguéjar
09001 BURGOS (SPAIN)

Tel. +34 947 28 11 30

Fax. +34 947 28 11 12

www.rg-systems.com



**THINK
GREEN**