



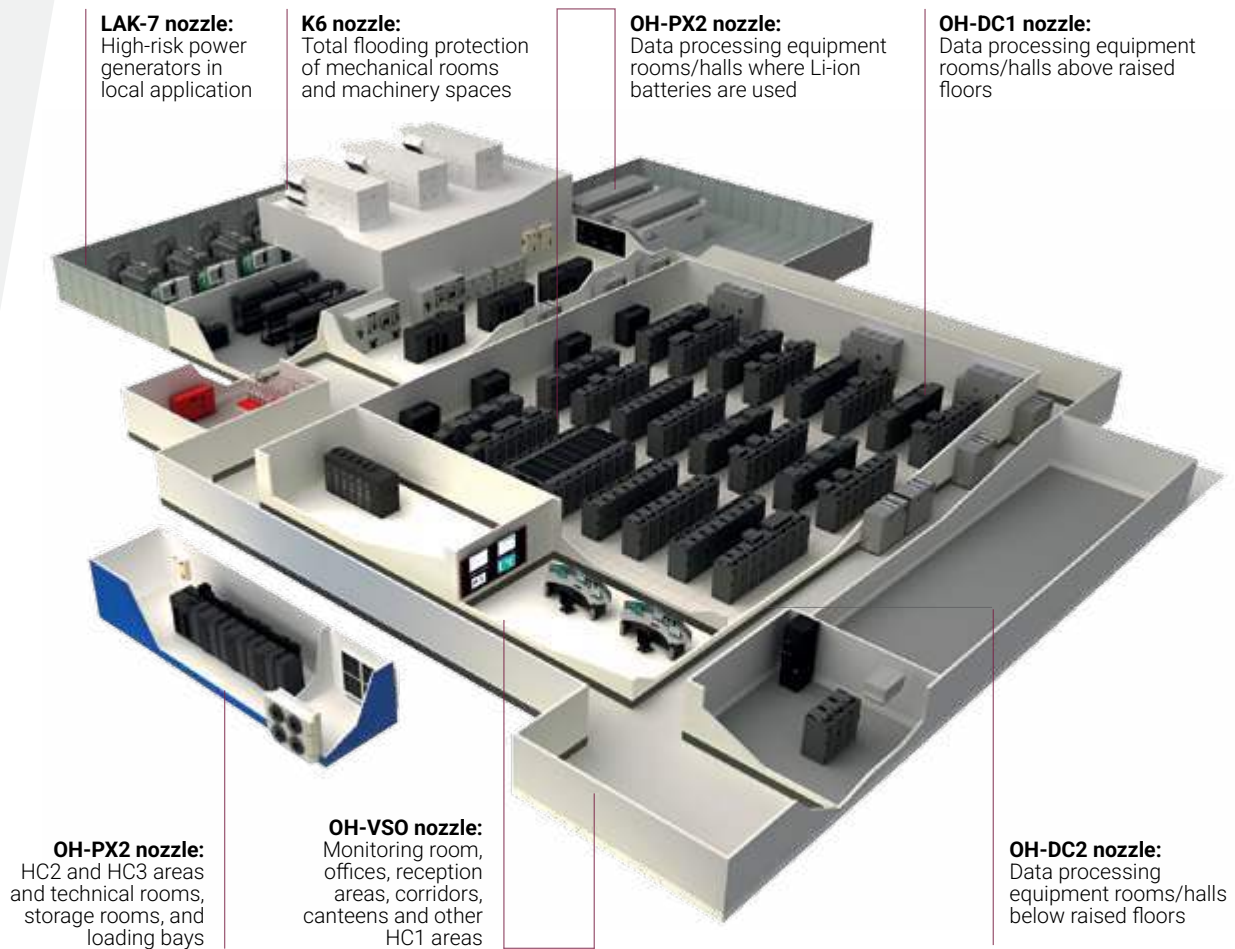
# Fire Protection for Data Centers

**VID** FIREKILL®

# Advanced low-pressure water mist technology

VID FIREKILL  
is a world leading  
innovative developer and  
manufacturer of low pressure  
water mist technology.





## A critical safeguard for the digital age

In today's hyper-connected world, data centers are the beating heart of businesses, institutions, and governments. They store, process, and manage vast volumes of critical information—making them essential, but also highly vulnerable. With thousands of servers and dense electrical infrastructure operating around the clock, even the smallest malfunction can lead to overheating, fire, and severe service disruption. In this context, fire protection is not just a requirement — it's a mission-critical priority.

## Intelligent protection for modern infrastructures

Each data center is unique in design and function — but all share the need for comprehensive and adaptable fire protection. VID FIREKILL's technology is tested and approved to protect every part of a facility: from raised-floor server halls and technical rooms to storage spaces and even Li-ion battery-powered systems. Modern data centers are also dynamic environments that evolve continuously. That's why our solution is designed to scale effortlessly — expanding along with your infrastructure without the need to redesign your entire fire protection strategy.

## Complete data center protection

VID FIREKILL delivers a reliable and highly effective solution through its low-pressure water mist technology, specifically engineered for the unique risks of data environments. Our systems provide fast-acting fire suppression while ensuring safety for people, protection for assets, and continuity for operations.

# One system for complete Data Center protection

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## VID FIREKILL maximized Air Velocity

The VID FIREKILL low pressure water mist system is FM approved with 1.7 m/s of air velocity in the data hall.

The system is also performance tested at 8 m/s with multiple level of cable trays. In contrast, sprinkler systems are limited at 1.5 m/s by FM DS 2-0.

## The VID FIREKILL system is FM approved to protect all areas of data centers

- Data processing equipment rooms
- Halls above and below raised floor
- Offices
- Circulation spaces
- Electrical rooms
- Technical rooms
- Storage rooms
- Loading bays
- Transformers
- Generators
- Data halls using Li-ion batteries in distributed power systems

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### Li-ion batteries in data centers

Following the new energy saving technologies in modern data centres, the VID FIREKILL system is now tested and approved for fire protection of Li-ion batteries according to the latest update of the FM standard.

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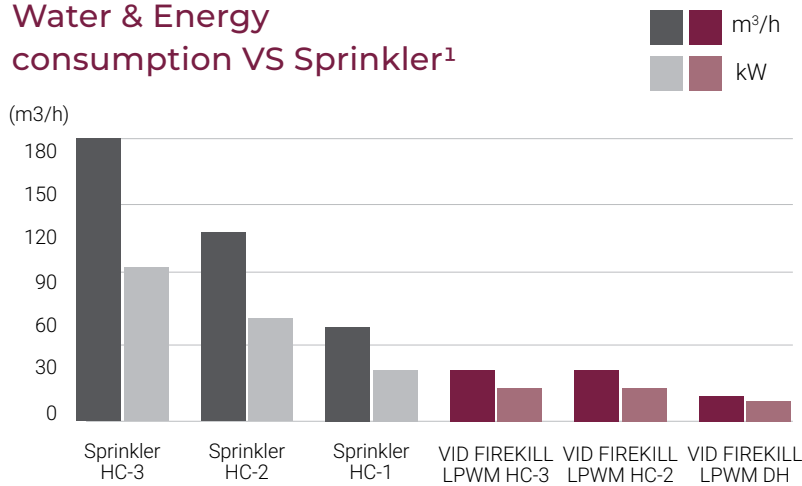
# Maximized efficiency and performances with low pressure technology

Unlike traditional sprinklers or high-pressure mist systems, VID FIREKILL combines the advantages of both worlds: advanced suppression performance with low water consumption and minimal system footprint, all delivered at just 8 bar of pressure. In addition, thanks to significantly lower water and energy consumption compared to traditional systems, VID FIREKILL technology combines environmental responsibility with economic efficiency.

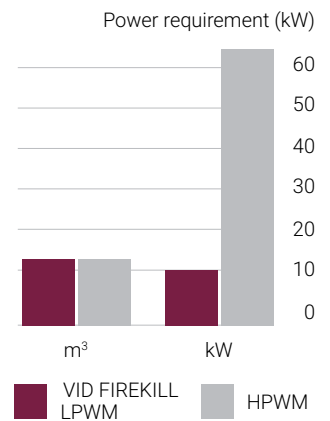
Our technology have been rigorously tested and are approved to the highest global standards, including FM 5560, NFPA 750, and EN 14972, ensuring maximum reliability and performance.

Low water pressure increases reliability and robustness as found in traditional sprinkler systems and also helps reduce installation, operational and maintenance cost.

## Water & Energy consumption VS Sprinkler<sup>1</sup>



## Energy consumption at equal volume VS HPWM<sup>1</sup>



### Our water mist system

- Can be designed, installed and maintained with the same skillset as if it was a conventional sprinkler technology
- Can be combined with conventional sprinklers for a hybrid system uses the same pressure class components as sprinkler technology (EN: <16 bar, NFPA: <12 bar)

- Is more robust and reliable than high pressure water mist technology requires less electricity than both sprinkler and high-pressure mist technologies



- Is approved to the same approval standards as high pressure water mist technology.



<sup>1</sup> Verified by independent testing (Multiconsult 2024), demonstrating reduced water and energy use compared with conventional sprinkler systems (EN 12845 / NFPA 13 equivalent) under equivalent fire-performance conditions.

# Benefits of our technology

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## Successfully tested and FM approved

The VID FIREKILL low pressure water mist technology is FM approved to protect all critical areas of modern data centers including data halls using Li-ion batteries.

## Environmental responsibility

The VID FIREKILL low pressure water mist technology requires very low water flow rates, resulting in water savings of 60–90% compared to conventional sprinkler technology.

Similar savings can be achieved with high-pressure water mist solution, but the VID FIREKILL technology delivers these benefits with significantly lower energy requirements.

With both reduced water consumption compared to traditional sprinklers and lower operating pressure than high-pressure systems, VID FIREKILL technology offers a low-impact, energy-efficient fire protection solution.<sup>1</sup>

## Cost effective and resource saving

Thanks to its low water pressure and low water consumption, the VID FIREKILL technology can be designed with compact components, including smaller reservoirs, pumps, pipes and fittings, resulting in significant cost savings.

In addition, since the installation procedures are similar to those of traditional sprinkler technologies, but with fewer nozzles and smaller pipes, the system can be installed faster and more easily, saving both time and money.

## Space saving and scalable

VID FIREKILL low pressure water mist technology requires smaller water tanks than conventional sprinkler technology, freeing up space for server cabinets. System expansions are easy to manage, with new pipes, valves and nozzles supported by the existing pump and water supply.



The **VID FIREKILL** technology designed for performance and responsibility.



Sustainable solution  
Reduced CO2 emissions by up to 70%  
Sustainable fire safety design  
Reduced production footprint<sup>1</sup>



Water saving  
Uses up to 80% less water than traditional sprinkler systems



Energy efficient  
Low energy consumption



# The right technology to protect your data center

Full range of all critical components tested and approved to ensure reliable and efficient fire protection.

## Nozzles

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**OH-DC1** is an automatic pendent nozzle designed for protection of data processing equipment rooms/halls above raised floor.

**OH-DC2** is an automatic upright nozzle designed for protection of data processing equipment rooms/halls below raised floor.

**OH-VSO** is an automatic pendent nozzle for protection of offices, reception areas, corridors, canteens and other HC1 areas.

**OH-PX2** is an automatic nozzle designed for protection of HC2 and HC3 areas and data processing equipment rooms/halls where Li-ion batteries are used, and technical rooms, storage rooms and loading bays.

**K6** is a total flooding open nozzle designed for protection of mechanical and electrical equipment found in machinery spaces.

**LAK-7** is an open nozzle designed for local protection of high-risk machinery in large industrial spaces.

## Valves

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C-EL Valve is an electrical control valve design to operate in open deluge systems as a zone valve or a full flooding valve.

C-EL-PA Pre Action Valve is a series of robust and reliable deluge pilot-control valves typically installed below and above data halls. The inclusion of the Model C-EL-PA Pre-Action trim allows the system to monitor dry pipe pressure drops creating additional false alarm prevention.

WAC Alarm Valve is a wafer style alarm check valve designed to detect the low water flows created when the watermist nozzle activates. The Model WAC utilizes a clapper function to detect the flow which ensures a safe and robust detection function.

## Pumps

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Compact pump consisting of non self-priming frequency controlled vertical stainless steel centrifugal pumps including controller.





Reliability  
according  
to the highest  
standards.

## Approvals

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VID FIREKILL low pressure water mist technology complies with FM 5560 – the main global standard currently defining the requirements for water mist technologies in data center protection. VID FIREKILL has been tested and approved according to full-scale fire test protocols published within the standard. The technology also complies with NFPA 750 and the European standard EN 14972, and includes several internally developed fire test protocols for emerging risks.

### Fully tested and approved

Based on these standards, VID FIREKILL technology is fully tested and approved to protect all areas in modern data centers. Compared to traditional sprinklers, it uses significantly less water while operating at low water pressure a significant advantage over high pressure water mist systems. VID FIREKILL technology is safe for people, equipment, and designed to reduce environmental impact.

### Four levels of approvals

All components have passed rigorous testing to verify performance, durability, and reliability. The production system is ISO 9001 and ISO 14001 certified and approved by FM, DNV. An essential reference for proper implementation is the DIOM – Design, Installation, Operation and Maintenance manual. This document has been developed in accordance with the EN 14972 standard and has been approved by the independent body FM Approvals.





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