



Fire Protection for Aircraft Hangar

VID FIREKILL[®]

Why Aircraft Hangars require dedicated protection

Aircraft hangars are some of the most demanding fire protection environments in modern infrastructure. These are not just large buildings — they house high-value assets, flammable liquids, sensitive electronic systems, and complex maintenance operations that involve fuel, lubricants, and high temperatures.

Traditional fire protection methods such as sprinklers or foam systems often fall short. Foam introduces environmental concerns (PFAS, PFOA), and can damage aircraft structures, avionics, or paint coatings. In some cases, the suppression method itself becomes part of the problem.

Hangars need a solution that's effective, non-invasive, and environmentally responsible — without compromising on performance.



Our Technology

VID FIREKILL's low-pressure water mist technology offers high-efficiency fire suppression without the use of chemicals or foam agents. Using **only potable water**, our system is based on purpose-designed nozzles — such as the F102 (floor-mounted) and F302 (ramp-mounted) — capable of delivering fine water droplets that absorb heat and displace oxygen, rapidly suppressing fire without damaging sensitive aircraft surfaces.

At the heart of the system are our **custom-designed telescopic nozzles**:

Model F102 is a floor-mounted, nozzle available in one- or two-way configurations. When activated by pressure, the nozzle elevates from the hangar floor and discharges a dense water mist into a 2x4 meter area — ideal for coverage under wings and around landing gear.

Model F302 is a surface-mounted alternative, delivered with an aluminum ramp for easy installation in retrofit scenarios or existing facilities.

Both models are **designed to preserve aircraft integrity**, avoiding damage to paint, sensors, or electronics - a frequent issue with foam-based systems.

Beyond the nozzles, the system is structured as a **deluge configuration**, capable of full-area activation or zonal control depending on layout and risk assessment. Components such as pumps, valves, and control panels are optimized for **low water flow and pressure (10–16 bar)** and minimal infrastructure impact — requiring smaller tanks, fewer nozzles, and lightweight piping compared to conventional systems.

Whether for new builds or retrofit projects, VID FIREKILL's hangar solution is **modular, scalable**, and easy to integrate within existing BMS or SCADA architectures.

Designed for Mission
- Critical Spaces



Scenarios & Testing

From Jet A1 to Real-World Hangars

Fires in aircraft hangars can escalate rapidly – particularly in the presence of spilled fuels, hydraulic fluids, or other flammable liquids. Pool fires from Jet A1 or Heptane can quickly reach extreme temperatures and spread beneath aircraft wings or between parked assets. Add to this the risk of ignition during maintenance operations, and the challenge becomes clear.

VID FIREKILL's solution has been developed and tested specifically for these high-risk conditions. Our low-pressure water mist technology has been validated through

full-scale fire tests using **Jet A1, Diesel, and Heptane**, replicating real hangar fire scenarios – including shielded pool fires and fuel spray fires.

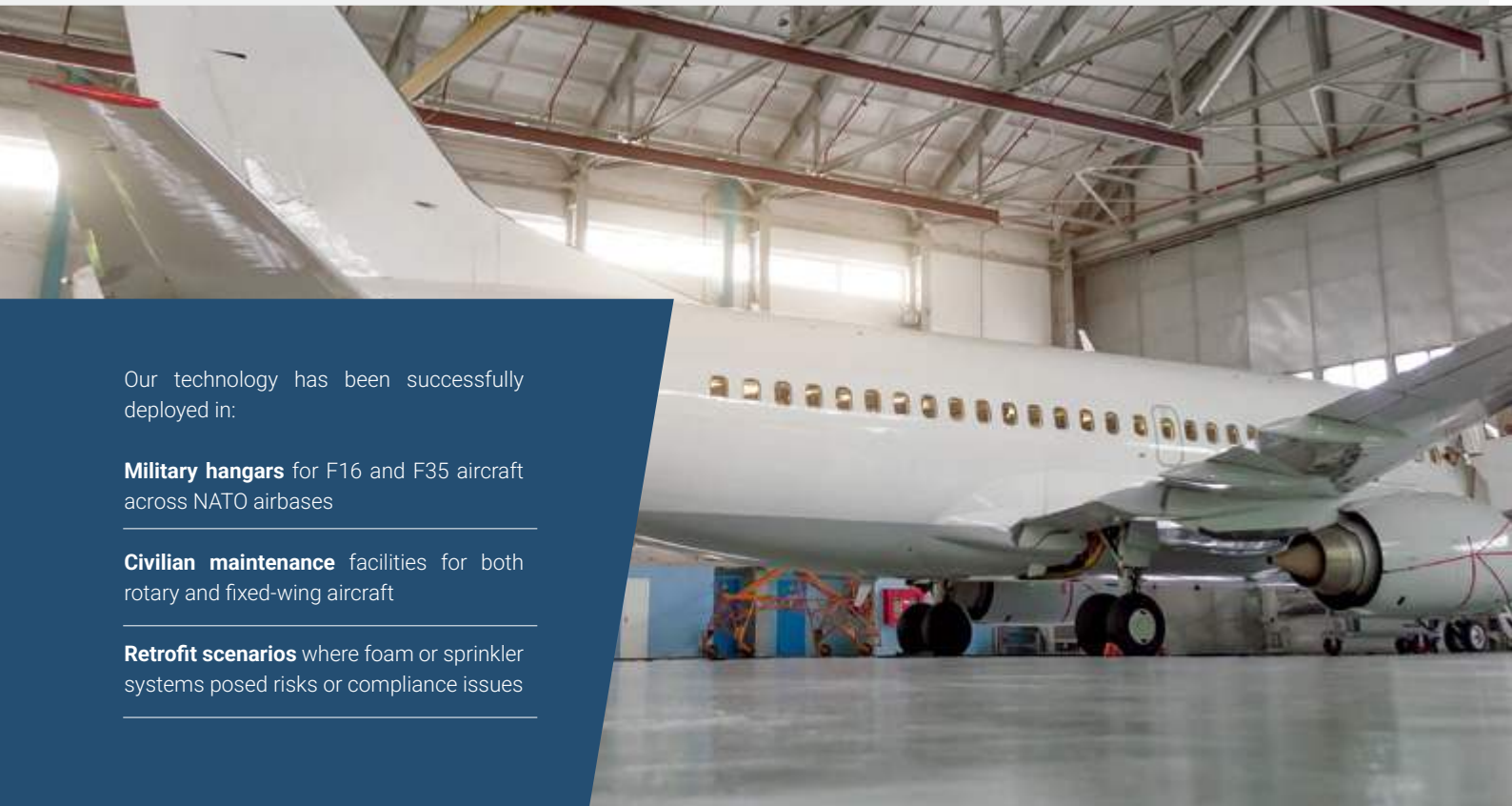
The system has also been proven to reduce **radiant heat, suppress and avoid reignition**, helping maintain aircraft integrity and protecting nearby equipment and personnel during a fire event. Unlike foam or conventional deluge systems, the mist does not flood the space or create corrosive residues, making post-fire recovery faster and more cost-effective.

Our technology has been successfully deployed in:

Military hangars for F16 and F35 aircraft across NATO airbases

Civilian maintenance facilities for both rotary and fixed-wing aircraft

Retrofit scenarios where foam or sprinkler systems posed risks or compliance issues



Compliance, Approvals & Documentation

Aircraft hangars are highly regulated environments – whether commercial, maintenance, or military. VID FIREKILL's solution is engineered to meet these demands.

Our low-pressure water mist technology complies with the European standard **EN 14972** for water mist systems and is suitable for **aircraft hangar protection projects**, aligned with **NFPA 409 – Standard on Aircraft Hangars**.

Key component certifications include:

- The Model C EL valve series has been tested and certified in accordance with **FM 5560 Appendix G**, including testing in total flooding water mist systems with K6 nozzles.
- Our production site is ISO 9001 and ISO 14001 certified, ensuring consistent manufacturing quality and environmental management.

VID FIREKILL provides full documentation including design manuals (DIOM – Design, Installation, Operation & Maintenance), test reports and certificate packages to support project approval and integration with aviation safety authorities.



Why choose VID FIREKILL for Aircraft Hangars?

Protecting aircraft, people, and critical infrastructure requires more than just meeting regulations – it calls for intelligent, efficient solutions.

VID FIREKILL's low-pressure water mist system offers:

Chemical-free suppression using only potable water – no foam, no PFAS, no residue.

Low water and energy requirements, reducing operational costs and environmental footprint.

Flexible nozzle configurations: floor-mounted (F102) or ramp-mounted (F302) for new builds or retrofit projects.

Minimal disruption to hangar layout, thanks to compact piping and reduced component footprint.

Safe for people and aircraft, even during maintenance operations.

Quick and straightforward installation, with fewer nozzles and smaller pipe dimensions.

A solution that is **proven, responsible, and future-ready**.

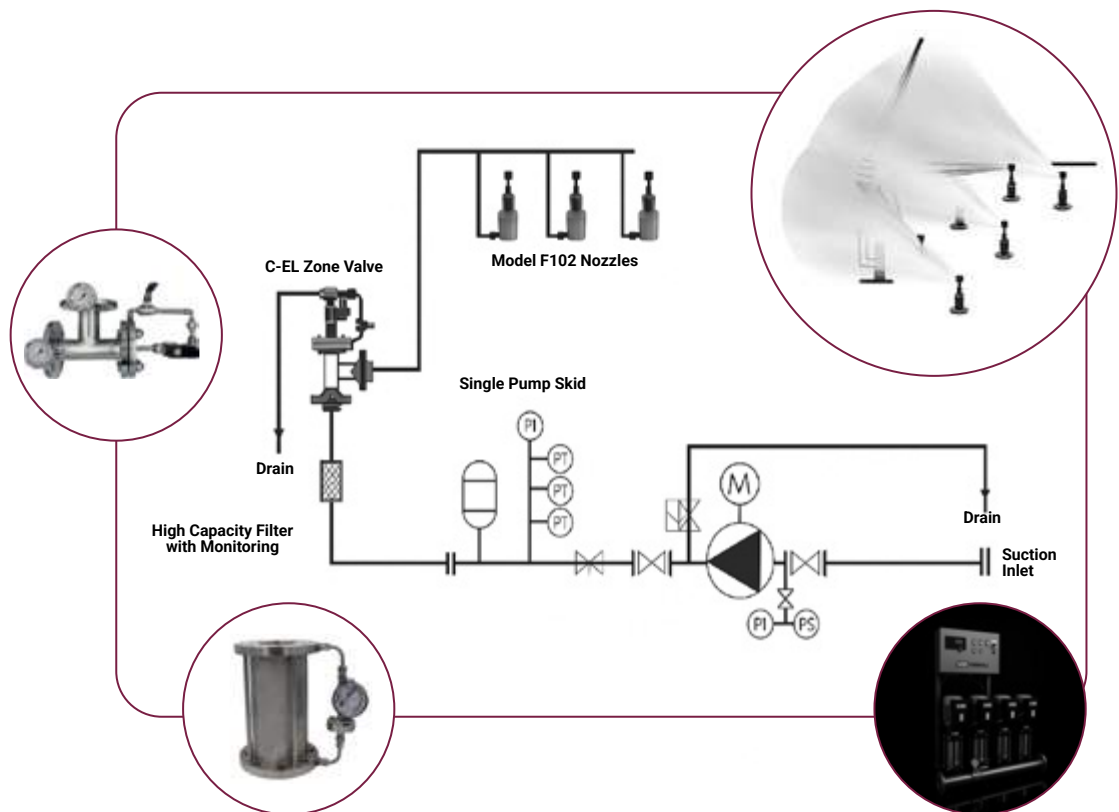
¹ Verified by independent testing (2024), demonstrating reduced water and energy consumption compared with foam-based and high-flow deluge systems, under equivalent fire-performance conditions.



Environmental responsibility without compromise

VID FIREKILL's solution is built for the future. Fully **fluor-free and free from chemical additives**, it helps create safer, cleaner hangars – without risking damage to sensitive equipment or aircraft surfaces. With upcoming regulations banning **PFAS-based firefighting systems** in both civil and military aviation, our **low-pressure, water-only** technology offers a truly responsible alternative.

And because it uses significantly **less water and energy** than conventional deluge or foam systems, it minimizes environmental impact – from design and installation to every system activation¹.



¹ Verified by independent testing (2024), demonstrating reduced water and energy consumption compared with foam-based and high-flow deluge systems, under equivalent fire-performance conditions.



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