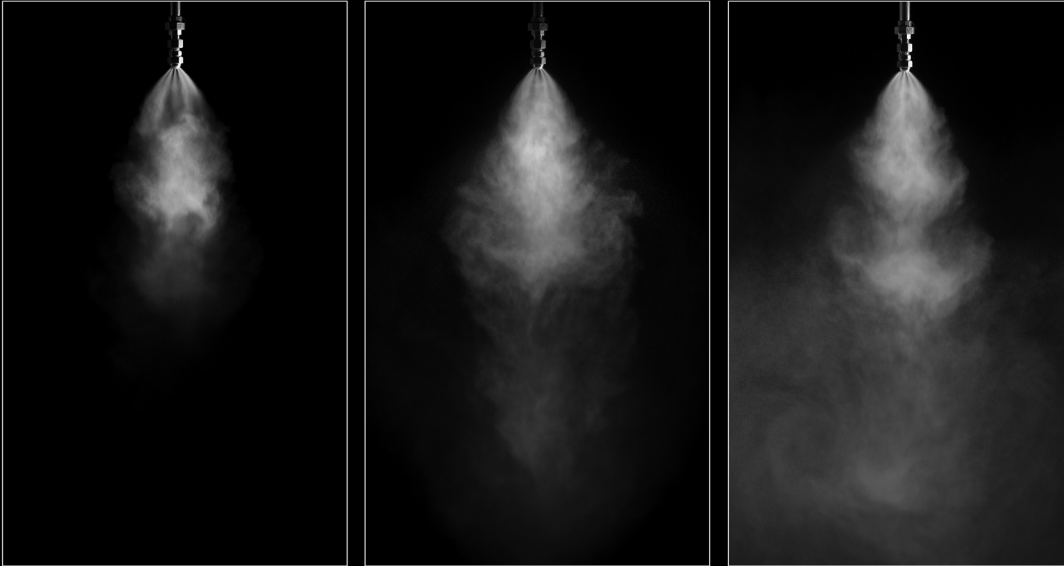


Green Fire Suppression System The Halon-Free Solution

Eco-friendly system suppressing fires in cargo holds in a two-phase approach with water mist and nitrogen

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Characteristics

Fire suppression systems in cargo holds of passenger aircraft are currently using halon as fire suppression agent. Halon as one of the most striking ozone depletion agents is banned from production worldwide and will be excluded from new EASA aircraft program certifications from 2018 on. This drives the need for a replacement without drawbacks in any of the known fire scenarios (kerosene pool, lithium-ion batteries, smoldering materials, etc.).

Diehl Aviation succeeded in utilizing its long-time airborne water management expertise – combining it with nitrogen – to derive the only existing halon system replacement still passing all proof-of-concept fire test scenarios defined by the FAA.

Benefits

The new Green Fire Suppression System is capable of most efficiently filling the cargo hold of a passenger aircraft with a mixture of nitrogen and highly disseminated water vapor – thus both cooling down the seat of fire and blocking out oxygen supply from the surrounding air. In its fully environmentally friendly approach Diehl Aviation succeeded in minimizing both system complexity and weight by developing a system based on a low pressure (<20bar) water vapor distribution which does not need any moving parts for operation.

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Technical Data

The Green Fire Suppression System comprises a water tank and nitrogen bottles – both located adjacent to the cargo holds. In addition, a common pipework is used for both the water and the nitrogen plus a number of spray nozzles most efficiently distributing the water vapour and nitrogen throughout the affected cargo hold. Piping geometries and nozzle quantities depend on the aircraft application and cargo hold geometries. After activation the whole fire extinction process takes place without any electrical or moving parts involved.



Want to know more about our products and their availability? Please contact us!

Diehl Aviation | Sales | Friedrichshafener Str. 5 | 82205 Gilching | Germany | Tel: +49 8105 210-0

www.diehl.com/aviation