



Foto: Torbjørn Kjosvold/Forstarets mediesenter

WATER MIST FIRE PROTECTION OF AIRCRAFT HANGARS

Water mist engineering

WME develops, produces and is a single source, full-service supplier of Active Fire Fighting systems. Our commitment to excellence is based upon a wide experience within fire engineering, system building, installation, service and commissioning. We focus on delivering cost efficient, high quality systems. When you purchase from WME, you are buying the finest environmentally safe fire fighting equipment possible.

AIRCRAFT HANGAR FIRE PROTECTION FOR HELICOPTER, FIGHTER AND PLANE.

WME has developed a complete fire protection system for JP8 fuelled aircraft, based upon low-pressure water mist systems.

Low Pressure Single Fluid water mist has been proven to offer a cost-effective protection solution for hangars.

Tests were carried out in SINTEF's large test hall (SINTEF-NBL, the Norwegian Fire Research Laboratory) with a fullscale steel replica of an F16 aircraft. Jet fuel spills, both as pool fires underneath the aircraft body and wings, and as fuel running over the body, were conducted. There was also a final demonstration carried out on an F104 fighter. The test proved that the system provides a very good protection of the plane without damage to the aircraft's critical systems.

- Pure water mist with NO additives.
- Low pressure, Single fluid and Low flow system.

This protection system is ideal for fire protection of Helicopters, Fighters, Liners and Cargo planes within hangars.

System solutions

1 The Ramp

The protection of the floor is achieved with pop-up nozzles mounted at floor level in the Ramp. The pop-up nozzle and the pipe will be covered by this ramp. Ramp size is only 60 mm. high and about 1-1/2 m. wide. It's designed for 8000 kg wheel pressure. This system will give a protection according to the SINTEF report.

2 In floor

Floor protection is achieved with pop-up nozzles mounted within the floor. Suitable for both steel and concrete floor. This system will give protection according to the SINTEF report.

3 On wall

The protection of the floor is done with nozzle mounted 20 cm. over the floor on the wall. This system will give a protection according to the SINTEF report.

4 Floor only nozzle

This system configuration is with floor mounted hangar water mist nozzle only. There is no roof nozzle in this solution. Gives a protection according to the SINTEF report.

System Combinations

WME offer hangar protection solutions using a combination of water mist nozzles, in roof, on walls or as pop-up nozzles. The system can be standalone, pump, or tap water based.

- Standard or bespoke.
- Release: manual, electric, pneumatic
- Singel or multi zone system
- Well proven design

Water Mist Technology

WME cutting edge technologies are based upon low pressure, single fluid nozzles. The pressure needed is only 8 Barg. Its technology is continuously being developed with more add-on systems like:

- Pop-up, Single Side Nozzle
- Pop-up, Dual Side Nozzle
- Pop-up, Tipple Side Nozzle
- Pop-up, Low Level, Single Side Nozzle
- Pop-up, Low Level, Dual Side Nozzle.
- The RAMP for protection of on-floor pop-up nozzles.

Advantages and Features

An aircraft's self contained nature and the close proximity of fuel lines and electrical equipment mean that even the smallest fire can be a catastrophe. If not promptly extinguished, fire might trigger a chain reaction that could result in the loss of crew and aircraft. WME protection system is extremely fast. It rapidly creates a mist around the fire, puts it down and stops the possibly extremely dangerous chain reaction.

No foam

Pure water will not degrade the water surface and will not penetrate the critical aircraft systems. Water with foam on other hand could penetrate critical aircraft systems within the aircraft and will subsequently wash out lubricants and possible lead to corrosion

Environment

- WME has only environmentally friendly solutions.
- WME use only water as agent