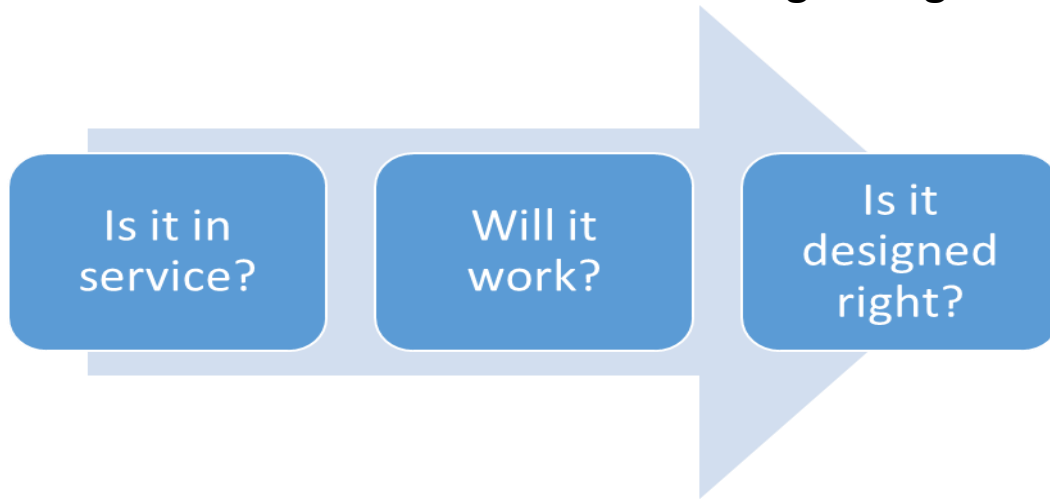


Water mist fire for property insurance purposes

Is it in service? Will it work? Is it designed right?



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I am a Senior Fire Protection Engineer with Zurich Risk Engineering. My role also involves the design, review, analysis of fire protection systems and the on-site testing and evaluation of fixed fire protection systems including sprinkler systems, water mist, kitchen extinguishing systems, gaseous fire suppression and automatic fire detection across a broad of industrial, manufacturing, educational and commercial premises to support Customers and Insurance Underwriters.

I am a member of several national and international committees representing Zurich, the wider insurance industry and as a UK representative on the following panels:

- Executive member of the National Fire Sprinkler Network (NFSN)
- British Standards Institution panel for water mist - BS 8489-1 /BS8458
- British Standards Institution panel for fire engineering - BS9999
- FIA/BAFSA water mist working group panel member
- UK delegate for CEN TC191 WG10 European Water Mist Standards Group – prEN14972
- NFPA750 Standard on Water Mist Fire Protection Systems

Abstract

Water Mist is a form of active fire protection that, like all extinguishing technologies can be effective in the protection of certain, but not all, risks. Water mist is a very challenging market with many claims being made that water mist is a direct replacement for sprinklers; as yet this is not the case. This risk topic seeks to explain the challenges and complexity of water mist as an alternative to sprinklers. Whatever water mist solution is selected for active fire protection it is vital that only systems using components and equipment approved by a recognised independent testing laboratory, backed up and evidenced by a suitable independent fire test protocol installed by trained

personnel in accordance with the manufacturer's system design and installation manual, should be considered as effective for property insurance purposes.

The selection of water mist for active fixed fire protection purposes will require the input, help and specialist knowledge of a competent fire protection specialist; water mist as a fixed fire protection solution is clearly an option for specific parts of buildings, but not for complete building protection. As yet. It is only suitable for certain specific proven applications and until we are at that stage, the use of conventional sprinkler systems should be chosen over water mist systems for complete protection of buildings.

Whatever solution is ultimately selected for complete building protection it is vital that only systems using components and equipment approved by a recognised independent testing laboratory, based upon a suitable test protocol installed by trained personnel in accordance with the manufacturer's system design manual, should be considered as effective for property insurance purposes. It should be noted that similar to other fixed fire protection systems, insurers may have additional operational criteria to satisfy their requirements for dependability and performance verification, such as power supply connections, water supply stipulations and periodic test facilities before they accept the complete system for property insurance purposes. Water Mist is a very challenging market and is still immature compared to the sprinkler market. Only systems using components and equipment approved by a recognized testing laboratory based upon a suitable test protocol, installed by trained personnel, in accordance with the manufacturer's system design manual should be considered as effective for property insurance purposes.

It should be noted that similar to other fixed fire protection systems, insurers may have additional operational criteria to satisfy their requirements for dependability and performance verification, such as power supply connections, water supply stipulations and periodic test facilities before they accept the complete system for property insurance purposes.