



Dear Sirs,

The International Water Mist Association (IWMA) is a panel of dedicated professionals and companies having an interest in fire fighting systems using water mist as an extinguishing agent. Members of IWMA include independent scientists, research laboratories, manufacturers, insurers, end users and authorities. Complete information on the IWMA is available at our website at www.imwa.net/.

We believe that water mist is an effective fire protection media for many risks. Water mist can often provide better protection than conventional technologies when taking into consideration the excellent cooling effect and environmental aspects of the agent. However, the International Water Mist Association promotes exclusively the professional design, installation and maintenance of water mist systems.

It has come to our attention that sometimes companies offer and install systems in a manner inconsistent with the professional practices promoted by IWMA. The IWMA is concerned that the installation of unreliable systems would cause an unacceptable risk to lives and properties being protected. Therefore, we would like to address this letter to engineers, consultants, end users and others who plan and supervise the installation of water mist systems, in order to provide some guidance on how to distinguish between reliable and unreliable systems

The IWMA would like to share with other fire protection professionals our thoughts on professional procedures for the design, installation and maintenance that will help produce a reliable water mist system. In this regard, we believe that there are three very important matters that must be addressed when selecting a water mist system:

1. Fire Testing and Approvals

From our viewpoint, we feel it is essential that the design of a given system is based on an applicable full-scale fire test protocol, carried out under supervision of an independent third party or witnessed by an authority having jurisdiction, and not merely based on assumptions, mathematical calculations, or simulations created by computer modeling.

The IWMA has recently observed that few market players offer systems based on computer simulations only. The IWMA would like to emphasize that these practices lead to an incalculable risk to lives and properties, and the IWMA discourages such behavior. While computer simulations may be valuable as a supplemental tool in understanding a water mist system, they have not been sufficiently developed yet to accurately predict results. It is often the responsibility of the authority having jurisdiction to ask for fire test documentation and to assure the tested scenarios are appropriate for the risk being protected. Nevertheless, designers and engineers should also look for fire test documentation in order to assure the proper installation of a system for the respective risk.

Manufacturers can often provide official approval documentation which makes the task of assessing suitability easier. However, it is important to note that such approvals are often application specific, thus one approval may not be relevant for another application. If you are unsure as to the relevance of an offered approval, the IWMA can provide assistance through our pool of dedicated independent experts.



2. Standards and Test Protocols

The role of standards and test protocols is important in guiding manufacturers, designers and system installers to produce a quality, reliable water mist system. Even though not all possible risks are yet covered by standards and test protocols, the number of available documents does continuously increase. The European standard for water mist systems will be published in summer 2008 as Technical Specification 14972, and contains test protocols for flammable liquids, cable tunnels and office occupancies. Other test protocols are under preparation and will be included during the first revision cycle.

Furthermore, it is recommended to refer to the U.S. design standard NFPA 750 for water mist systems. NFPA 750 covers most of the mechanical and maintenance aspects of a water mist system. In addition, FM Approvals has published the test standard FM 5560, which contains a number of various test protocols. Also, there are other test protocols such as IMO A 800, MSC 668/728, MSC 1165 and MSC 913 prepared by the International Maritime Organization, principally focused on marine applications. These test protocols often provide useful guidance for the application of water mist systems to land based installations.

3. Experience

Water mist systems are quite different from conventional fire fighting systems such as sprinklers, CO₂ or other gaseous systems in the way they are designed, installed, operated and maintained. Therefore, it is important that manufacturers and installers of water mist systems have gained the necessary experience to produce high quality, reliably performing systems. When considering a provider for a water mist system, prospective customers should ask for references and also training certificates from system manufacturers. Designers and engineers should also consider if the manufacturer provides an experienced and professional research and development department.

We would like to summarize that the adherence to the fire testing, standards and test protocols and experience advice above will assure sound professional practices and reliable water mist systems for customers.

Sincerely,

On behalf of the IWMA Board of Directors
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President

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