

IWMC 2016 – Panel Discussion

THE QUALITY OF WATER MIST SYSTEMS

**Discussing the quality of water mist delivered
solutions in terms of fire suppression capabilities**

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WATER MIST TO-DAY: A MATURE TECHNOLOGY

- Starting in the early '90s water mist technology can nowadays be considered a «mature technology»
- There are several manufacturers and installers operating on a market sized at hundreds million Euro per year
- Systems are installed everyday in almost all countries.
- Water mist “capabilities” are nowadays claimed by most of the Fire Protection Companies operating worldwide.



WATER MIST TO-DAY

- From the original “total compartment systems” designed to replace gaseous systems no longer acceptable under the environmental restrictions, the technology moved to the bigger market of the equivalent sprinkler systems.
- Tests have been “invented” by several organizations and are carried out almost continuously by the available laboratories.
- Standards are developed, more or less quickly!!!
- And again: systems are installed and serviced everyday in almost all countries.



THE “DELIVERY PROCESS” 1/4

- Let’s consider the various steps to go from the development of the technology to the installation of a real system as a process.
- And let’s examine the different steps of this process and the involved “actors”

STANDARDS

Systems are developed.

(mainly by manufacturers)

Systems are actually installed.

(It involves: Fire Prot. Companies, consultants, Clients, Authorities.)

Systems are accepted.

(It involves: Consultants, Authorities, Insurance Company experts)

Systems are managed.

(mainly by Clients, Service Companies)

THE “DELIVERY PROCESS” 2/4

- It is a peculiar process... unique in the fire protection world.
- It in fact leave to the operators (Fire Protection Companies, Consultants and Clients in the first line) the responsibility of deciding whether the proposed water mist solution is suitable for the protection of a determined hazard or not.
- To do it we all (the water mist community) offer to the operators several documents: approvals for determined applications (never identical to the actual hazard to be protected – **e.g. sloped ceilings**), test reports, and “assurance of effectiveness sometime based on in-house testing of the proposed system”

THE “DELIVERY PROCESS” 3/4

- Just to be more clear, let’s examine how the other technologies are used in the same process from the “theory” to the actual installations:
- Tests are carried out more or less in the same way as for the water mist systems.
- But....
- It is the Standardization Organization that interpreters the test results and transforms them into detailed engineering rules for design, installation and acceptance of systems.
- The “normal operators” simply apply the engineering parameters indicated in the published standards to design and install the system

THE “DELIVERY PROCESS” 4/4

- In the water mist world the “passage” from the tests to the real system is always under the responsibility of the Consultants and of the Fire Protection Companies
- Several systems have been developed to “bring this process under control”
 - There is the “approved process” where the test results are examined by an “Approval Body” that takes the main responsibility of considering the system suitable or not for some specific applications.
 - There are the “Company recognition process” where the Fire Protection Companies are examined and “Listed” as reliable water mist suppliers.
 - There are all others with Test Reports and Consultants....

QUESTION 1



- **DO YOU THINK THAT THE CURRENT PROCESS OF DELIVERING WATER MIST SYSTEMS HAS THE CAPABILITY OF DELIVERING SYSTEMS THAT, IN CASE OF AN ACTUAL FIRE, WILL HAVE A SUFFICIENT POSSIBILITY OF BEING EFFECTIVE ACCORDING TO THE SCOPE THEY HAVE BEEN SPECIFIED?**

QUESTION 2



- WHICH IS IN YOUR OPINION THE BEST TOOL TO GRANT THE EFFECTIVENESS OF THE INSTALLED SYSTEMS AMONG THE CURRENTLY ADOPTED?
- i.e.: to require approved systems only; to certify the installers; ...

QUESTION 3

- WHAT DO YOU CONSIDER MORE CRITICAL, FOR THE SUCCESS OF A WATER MIST SYSTEM INSTALLED TO PROTECT A SPECIFIC HAZARD:
 - The selection of the appropriate system among the available technologies and/or solutions?
 - The capability of the installer to build the system as it should be in terms of quality and compliance with the characteristics of the system tested for that hazard

QUESTION 4

- WOULD YOU SUGGEST ANY MODIFICATION TO THE “PROCESS TO DELIVER A SYSTEM TO THE MARKET” IN ORDER TO MAKE THE EFFECTIVENESS OF THE INSTALLED SYSTEM MORE IN LINE WITH THE EXPECTANCIES?
- i.e.: modification of the standard in order to....



QUESTION 4



- **WOULD SHOULD IWMA DO TO HELP THE PROCESS OF DELIVERING THE SYSTEMS TO THE MARKET AND TO MAKE IT (the process) MORE EASY FOR THE OPERATORS SO THAT MORE SYSTEMS ARE DELIVERED AND WITH BETTER PROBABILITY OF SUPPRESSING THE FIRE ONCE ASKED TO DO IT?**



**THANK YOU ALL FOR THE
PARTICIPATION**