Where next for water mist?

24 September 2025

2025 IWMC International Water Mist Conference

EUROPEAN FIRE SPRINKLER NETWORK

Agenda

1) Some thoughts about water mist and sprinklers

2) Attractive applications for water mist

3) A third-party water mist installer scheme

Some thoughts about water mist

- It uses less water, so pipes and tanks are smaller
- Less water = less water damage from leaks and in fires

So why does anyone use sprinklers?

- Water mist is usually more expensive (stainless steel)
- It cannot protect higher hazards (e.g. warehouses)
- It is harder to specify (manufacturer specific)
- Water mist has not fully won over insurers

Some thoughts about sprinklers

- Many of those who buy a sprinkler system do not want to
- A sprinkler system will not:
  - Increase the value of a property
  - Increase sales for a business
  - Be a feature (sprinklers are often air-brushed out from hotel web sites – are there concealed water mist nozzles?)
- Most sprinkler systems are sold on price to obtain regulatory compliance and/or insurance

Call it the area coverage market

More thoughts about water mist

- Many water mist systems are installed as alternatives to gas systems or water spray systems:
  - Machinery spaces
  - Turbines
  - Industrial cookers
  - Other local applications
  - Computer rooms and floors
  - Cable trays

Loss prevention is the goal, not regulatory compliance

Insurers like water mist here

Water mist can be cheaper than gas

- Sprinklers are often not the competition!

Call it the local application market

Water mist is attractive vs. sprinklers where it is hard to find space for a tank or pipes

Car parks:

- There is debate about the necessary sprinkler application density – if it must increase this should also impact EN 14972-5
- LPC (insurance) rules require 12.5 mm/min over 260 m^2 or about 200 m^3 of water – with a height of 2.5 m and space for a pump that means at least 4 parking spaces in an underground city car park!
- The potential for water mist to save space could win parts of this market, whatever density is required

Water mist is attractive vs. sprinklers where it is hard to find space for a tank or pipes

City centre buildings:

- Again, the sprinkler pump and tank take up a lot of space
- This space often has a high value
- But water mist would often have to be equivalent to sprinkler OH3
- Insurers may require weekly water supply tests, as for sprinklers
  - ✓ Do the pumps start?
  - ✓ Does water flow in the system
  - ✓ Does it generate the necessary alarms?

Is this standard practice in the water mist industry?

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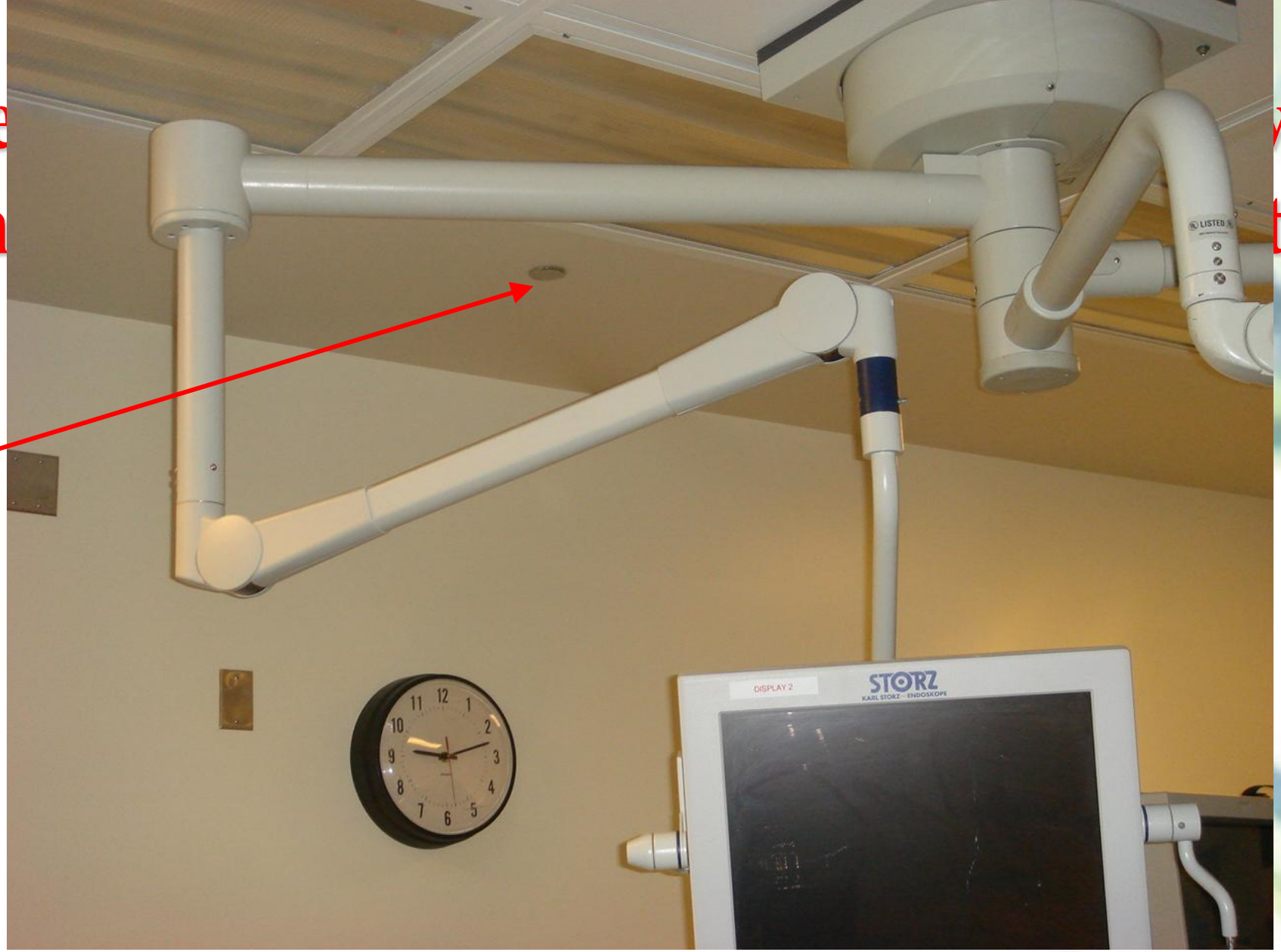

Water mist is attractive vs. sprinklers where there is concern about escape of water

Hospitals:

- Stainless steel pipes do not corrode so should not leak
- If there is a leak the water is less dirty and there is less of it
- BUT hospital budgets are tight and sprinklers are probably cheaper

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Escape of water – Mass timber buildings

- The mass timber industry would like to avoid the cost of a sprinkler system and in many countries is pushing passive protection as adequate
- Firefighters and insurers want sprinklers
- Smaller pipes make water mist easier to fit
- Insurers also worry about the repairability of these buildings
- Releasing less water will reduce the risk of mould
- Water mist nozzles operate earlier, so less fire damage

More good news for water mist

- Water mist systems generally embody less CO_2 (less steel) than commercial sprinkler systems

- This will become an increasingly important consideration as environmental product declarations and life cycle analyses become more widespread requirements

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How can we win ove

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  - Third party approval of system, DIOM a
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  - Certification of installed systems under t
- We have a plan:
  - Draft scheme with BRE (as sprinklers)

1. INTRODUCTION

1.1 Principles

Automatic watermist systems are installed in industrial, storage, commercial, retail, residential and domestic premises to safeguard life, property and the environment. Equipment designs and system configurations are continuously evolving. In order to ensure adequate protection, installers need an appropriate level of technical competency in design, installation, commissioning and servicing.

1.2 Technical Standards

The technical requirements for Watermist systems are set out in a series of European Standards against relevant Fire Risk Scenarios.

A full list of all the acceptable standards is given in Appendix 1.

When used in conjunction with the system manufacturers design and installation documentation (DIOM) form the basis for the approval of installers under this scheme including the levels of competence required for different categories of work.

2. SCOPE

2.1 Scope

An Installer may be a specialist company in one or more of the following:

- the design, installation and commissioning of commercial and industrial Watermist systems
- the design, installation, commissioning, and servicing of residential & domestic water mist systems
- service and maintenance of the above installations.

Servicing will only be added if the installers uses competent staff and can offer a complete service package fully in accordance with the relevant European and British Standards together with applicable DIOM manuals and Scheme Guidance Notes.

2.2 Scheme Structure

Installers will be required to work within their agreed scopes.

How can we win over

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  - With draft qualifications for key people (a

Water Mist System Design Course
Funding Proposal

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How can we win over insurers?

- Water mist must work under a similar QA scheme to sprinklers
  - It already does in some countries (decades in Germany) but not in UK
  - Third party approval of system, DIOM and components
  - Third party accreditation of installers, including third party inspections of installed systems
  - Certification of installed systems under the scheme
- We have a plan:
  - Draft scheme with BRE (as sprinklers)
  - With draft qualifications for key people (as for sprinklers)
  - And we are finding funding to implement it

IWMA is involved!

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