

Update Watermist Norm EN 14972

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Bio:

Dirk Laibach boasts over 30 years of varied global experience in the fire suppression/detection industry, including 23 years related to Water Mist. He has held positions of increasing responsibility with Siemens, KIDDE, FOGTEC Fire Protection, Marioff and currently as Senior Global Product Manager for Water Mist at Johnsons Control.

He is involved and member in several trade associations, codes, and standards organizations (CEN TC191 WG10) and approval authorities (like VdS, FM) in Europe and USA. He also has extensive relationships within the industry and AHJ bodies. Dirk Laibach holds a degree in electrical engineering (Dipl.-Ing.) from the University of Applied Sciences Düsseldorf, Germany, and is a VdS-certified engineer for Water Mist Fire Suppression Systems.

Abstract

[Background]

Each EN14972 **Watermist** test protocol (Parts 2-17) has been specifically developed for the assessed fire risk/hazard. Most of the fire test protocols require additional parameters to be met/passed beside the above-mentioned generic fire protection system goals.

EN14972 part 1 gives guidance how to design, install, operate, and maintain **Watermist systems**. For the manufacturer-specific system details the EN14972 part 1 refers to this manufacturer's system DIOM.

Content of this presentation to give an update of the actual status regarding the Water Mist norm EN14972 Parts 1-17.

[Objective]

A series of fire tests protocols for **Watermist systems** have been developed and released by accredited laboratories or insurers or being in the content of the specific fire test protocols like FM5560, EN14972 2-17, VdS 3883, several BS, DFL, ISO and UL 2167 to validate the performance of **Watermist systems**. These **Watermist** fire test protocols are available for typical sprinkler and gas applications. EN14972 parts 2-17 took over all these test protocols, the basic content/requirements did not change. These have been adopted being compliant with the CEN regulations in EN14972 parts 2-17. EN 14972 part 1 has been developed also based on existing guidelines and been adopted to the CEN regulations, but all is ongoing still.

[Method]

Part 1: Design, Installation, Inspection and Maintenance

Part 2: Test protocol for shopping areas for automatic nozzle systems;

Part 3: Test protocol for office, school class rooms and hotel for automatic nozzle systems

Part 4: Test protocol for non-storage occupancies for automatic nozzle systems

Part 5: Test protocol for car garages for automatic nozzle systems

Part 6: Test protocol for false floors and false ceilings for automatic nozzle systems

Part 7: Test protocol for commercial low hazard occupancies for automatic nozzle systems

Part 8: Test protocol for machinery in enclosures exceeding 260 m³ for open nozzle systems

Part 9: Test protocol for machinery in enclosures not exceeding 260 m³ for open nozzle systems

Part 10: Test protocol for atrium protection with sidewall nozzles for open nozzle systems

Part 11: Test protocol for cable tunnels for open nozzle systems

Part 12: Test protocol for commercial deep fat cooking fryers for open nozzle systems

Part 13: Test protocol for wet benches and other similar processing equipment for open nozzle systems

Part 14: Test protocol for combustion turbines in enclosures exceeding 260 m3 for open nozzle systems

Part 15: Test protocol for combustion turbines in enclosures not exceeding 260 m3 for open nozzle systems

Part 16: Test protocol for industrial oil cookers for open nozzle systems

Part 17: Test protocol for residential occupancies for automatic nozzle systems

[Results]

The EN14972 part 2-17 fire test protocols tests of **Watermist systems** have given in the fire test evidence for proper performance. These tested **Watermist systems** have demonstrated their ability to suppress or extinguish fires, means they have demonstrated in the conducted fire tests their ability to reduce the fire damage and ceiling temperatures, to limit fire propagation or even are able to extinguish it, in dependency which test protocol is applied. To design and plan the **Watermist systems** properly the EN14972 part 1 and the manufacturer's DIOM needs to be applied.

[Main conclusions and recommendations]

The EN14972 norming series is - by today - a properly developed European norm for **Watermist firefighting systems**. The multiple parts of this norm series are under permanent, further development and redaction. This work/task is dedicated to a specific working (WG10) within the CEN 191 committee. Saying this the presentation will give an update of the today's status quo and will give an outlook about the upcoming work in this CEN TC191 WG10.