VdS 3883 – The new fire test protocol series and other new developments

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Bio: Kamil Świetnicki has got nearly 10 years' experience working with fire suppression systems. His work has primarily focused on water mist and sprinkler systems. He has had made a Master's degree on the Warsaw University of Technology with the topic of smoke ventilation in the parking garage in 2011. Works in VdS since 2012. Kamil has done several water mist system inspections in Europe and Middle East and several design discussions on very big water mist system projects. In VdS Kamil is also responsible for the FM guidelines and working in the group who is preparing the way of inspections of FM guidelines by VdS. Beside water mist systems Kamil has done hundreds of sprinkler system inspections all over Europe. During his work for VdS, Kamil participated in lots of trainings with fire suppression systems topics. Kamil has been conducting trainings for external companies cooperating with VdS for five years.

Abstract

VdS is an independent institution and approval body which has been ensuring safety and trust in the fields of fire protection and security for many decades. Our customers include industrial and commercial enterprises, leading manufacturers and systems houses, service providers, specialist firms and insurance companies. VdS Schadenverhütung GmbH (short: VdS) has international presences (12 offices) and over 500 employees. VdS is the preferred partner in matters of fire protection and security – especially regarding the VdS approved systems and components.

The general approval process is based on the guidelines VdS 2562 and VdS 2344 and structured in several steps. Running fire tests for proofing the effectiveness of the system to be approved as well as mechanical testing to ensure safety and reliability of components are major steps in the approval process. After completing these steps, the manufacturer finally has to develop a planning and installation manual which has to be approved by VdS, too.

While the approval process itself was always clearly described, the fire test protocols lacked a standardized structure and uniform requirements, e.g. for the measurements. This is the reason, why VdS decided to revise all existing standard fire test protocols and publish those in a new test protocol series: VdS 3883 – VdS Guidelines for Water Mist Systems. This test protocol series published in 2020 covers eight different types of applications right now:

- VdS 3883-1: Protection of office spaces and accommodation areas
- VdS 3883-2: Protection of Office Spaces and Accommodation Areas with Water Mist Sidewall Sprinklers
- VdS 3883-3: Protection of False Ceilings and False Floor of OH Group 1
- VdS 3883-4: Protection of car garages

- VdS 3883-5: Protection of selected sales and storage areas and mechanical floors
- VdS 3883-6: Protection of Paint Booths
- VdS 3883-7: Protection Areas with Combustible Liquids
- VdS 3883-8: Protection of Cable Ducts

These test protocols will continuously be updated and new test protocols are to be added in future.

Also, in course of the new (DIN) EN 14972 standard, VdS fire test protocols play a remarkable role. Since some of the existing VdS protocols fulfill the fast-track criteria, which need to be fulfilled to be added to the EN standard, some tests protocols will be added to EN Standard soon. All in front VdS 3883-1, covering office spaces and accommodation areas. That means, applicants for a VdS approval will have the chance to get a VdS approval and EN conformity without any additional testing.

Another benefit for users of these test protocols: it is intended that the test protocols will be listed in NFPA 750 in future. This will have another positive impact of the world-wide acceptances of VdS approved systems.

Finally, some may have read the press release on the cooperation with FM a short while ago. Since some time, it is possible that VdS Inspection Service inspects also FM approved water mist systems, provided that some preconditions are met.

SUMMARY

The presentation will give a brief overview about the general VdS approval process as well as the structure and layout of VdS 3883 first. After that we would like to talk about implementation of VdS test protocols in EN 14972 and, since we were asked to do so by Bettina McDowell, the option of getting inspected FM approved water mist systems by VdS Inspection Service.

KEYWORDS: VdS Schadenverhütung, water mist, VdS 3188, VdS 3883, VdS standards, VdS guidelines, VdS Fire Test Protocols, approval body, approvals, inspection service