

Revised VdS Guidelines for Water Mist Systems VdS 3188 – A general overview and important improvements.

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BIO: Kamil Świetnicki has got 8 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. Except the water mist system Kamil has done hundreds of sprinkler system inspections in most of the Europe. During the work in VdS, Kamil participated in lot's of trainings with fire suppression systems topics. Kamil has been conducting trainings for external companies cooperating with VdS for two 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 over 100 years. 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 (11 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 initial edition of VdS 3188 was published in 2015. At that time VdS did not provide guidelines for planning and installation of water mist systems at all. The requirements on how to plan and install a water mist system were based on guidelines for other water based extinguishing systems, e.g. VdS CEA 4001. To develop a new guideline for water mist system hence was a natural and required step.

A working group developing the guideline was constituted and made up of manufactures holding a VdS approved water mist system including their qualification as a VdS approved installer, the VdS laboratories as well as the Product Management of VdS. The cooperation of all parties involved was very effective and successful so that VdS 3188 was published approximately one year after starting the work.

The layout and structure of VdS 3188 is according to other established VdS guidelines like VdS CEA 4001 or VdS 2109 which simplifies the use to experienced users of VdS guidelines significantly. The main part contains the fundamental requirements on planning and installation of water mist systems and is complemented by several annexes, e.g. Annex K for protection concepts.

As usual for a new guideline some editorial and practical issues were discovered once the guideline was put into practice. After gaining that practical experience in several projects the manufactures and VdS experts were able to give a valuable feedback for the revision process and the revision process was initiated in 2018.

The declared aim of the revision process was

- General improvement and update of guideline
- Incorporating practical experience from VdS Inspection Service and Manufactures & Installers
- Involvement of stakeholders
 - Manufacturers & Installers
 - Water mist system operators
 - bvfa (German fire protection association)

The main features and focal points of review were the general adaptation of VdS 3188 analogue to other VdS Guidelines (e.g. VdS CEA 4001), update of references to standards and requirements, correction of faulty references and additions (e.g. Protection concept).

Some notable amendments:

- New protection concept for transformers (Annex K.2.7)
- Minimum operating time was set to 60 minutes acc. to EN 14972
- Requirements of reduced capacity tanks were revised
- Size and position in the pipework of filters and strainers was rearranged.

In future VdS 3188 will be revised continuously to keep the guideline up to date and react on recent demands of the market. The involvement of the above mentioned stakeholders will be continued.

The presentation will give a brief overview about the general structure and layout of VdS 3188 first and then describe the major changes and improvements in the revision process.

KEYWORD: VdS Schadenverhuetung, water mist, VdS 3188, VdS standards, VdS guidelines, approval body, approvals, inspection service