



Fire Protection
on Site:

**The VdS Inspection
Services**

Imprint:

VdS Schadenverhütung GmbH
Amsterdamer Str. 172
D-50735 Cologne
www.vds.de/inspect



Your safety: The VdS Inspection Services

Every year more than **20,000 people** die from fires in the USA and Russia alone. Every year French firefighters are called out more than **4 million times**. And every year the German economy loses more than **2 billion Euros** due to fire loss.



Uninsurable loss, such as inevitable customer loss resulting out of the collapse of the affected business, is much higher still. It can even mean the end of the affected company.

Protect your staff and your sites with our expertise and experience

VdS is Europe's number one institution for fire protection – as well as a preferred partner for the certification of safety and security products, service providers and management systems, and for the inspection of fire protection systems on site. Furthermore, VdS publishes comprehensive regulations for fire protection and safety engineering that set international standards and, as a renowned educational institution, also organises courses and technical conferences. The reliability of fire extinguishing systems has been tested by VdS ever since they were first introduced in Europe.

VdS is the first and so far only state-accredited inspection body for fixed automatic fire protection systems (accreditation in accordance with ISO 17020 by DAkkS). Our experts inspect and assess over 26,000 fire protection systems worldwide every year. VdS experts have extensive in-depth knowledge based on many years of field experience and worldwide networking. In addition, the research carried out by the VdS laboratories benefits us and so our customers. As a member of all relevant national and international committees, VdS plays an instrumental role in developing fire protection regulations.

Thanks to our infrastructure, which is unparalleled in Europe, we are able to offer you inspection services for all types of fire protection systems.

More than 100 years of collective experience with a clear focus on fire protection and the own VdS laboratories are unique features worldwide.

The VdS philosophy: Comprehensive protection for our customers

- VdS develops its own practical guidelines that form the basis of reliable all-round fire protection.
- The long-term operational reliability of fire protection systems is rigorously tested and certified by the VdS laboratories. VdS-approved components and systems ensure compliance with relevant standards and guidelines.
- VdS approval of installers ensures that you can rely on the equipment and the workmanship of these service providers from the planning stage down to maintenance.
- The VdS Inspection Services test the reliable operation of all fire protection systems directly on your premises.

The inspection programme of the VdS Inspection Services includes:

- Water extinguishing systems (e.g. sprinkler systems, water spray systems, fine water spray systems, foam extinguishing systems)
- Gas extinguishing systems (e.g. CO₂, argon, Inergen, nitrogen, Argonite, FM 200, Novec 1230)
- Special extinguishing systems (e.g. spark extinguishing systems, extinguishing systems for kitchen protection)
- Fire detection and fire alarm systems
- Wall hydrants, exterior hydrants and risers
- Smoke exhaust ventilation systems (smoke and heat exhaust ventilation systems, smoke exhaust ventilation systems in staircases, mechanical smoke exhaust systems, differential pressure systems)
- Fire-resisting closures
- Voice alarm systems
- Special fire protection systems, e.g. oxygen reduction systems

Everything from one source:

- At your request, we will combine an inspection for insurance purposes with an inspection based on building law regulations – saving you time and money.
- We can also combine the necessary inspections of all your fire protection systems on site, e.g. fire detection/alarm systems and fire extinguishing systems.
- Inspections will be carried out in accordance with practical VdS guidelines or other national and international standards, such as NFPA (National Fire Protection Association) or FM (Factory Mutual) regulations.

Rely on VdS – Europe's major expert organisation for fire protection.



■ Inspection and support of projects in the planning phase

Optimum fire protection is determined by a large number of variables. Fire protection systems can only provide you with an effective and reliable level of safety if they meet your specific requirements, if interfaces have been designed without error and interactions have been clearly defined.

Comprehensive technical fire protection starts with the planning phase. Errors can occur at any stage during the implementation of a fire protection system. The later they are detected the harder and much more expensive they are to rectify.

VdS experts can support you even before the installation of your system. They will examine protection concepts to ensure your adequate fire protection – specifically tailored to your individual requirements. We offer you maximum planning reliability for the complete implementation process.

Revision inspections

Changes in the underlying conditions, such as changes in the occupancy of buildings and rooms or a change of stock material, can impair the performance of fire protection systems. Therefore, after the approval inspection VdS experts can carry out revision inspections on a regular basis, e.g. at half-yearly or yearly intervals.

Revision inspections are required not only by insurers, but also by authorities based on building regulations (e.g. technical inspection regulations). We are happy to combine them to save you costs and effort. Of course, revision inspections may also be based on your own safety requirements

Our customers benefit from additional savings and minimum expenditure while maintaining the high level of VdS quality.



■ Expert inspections of fire protection systems on site

Initial inspections (approval)

The initial inspection of a newly installed fire protection system entails a thorough examination of every last detail.

- Does the scope of protection conform to legal requirements and insurance regulations?
- Is the quantity of extinguishing agents sufficient and appropriate for the protected object?
- Are the components functionally compatible?

These are only some of the questions from an extensive list to be answered in the initial inspection. The findings are then summarised in the VdS test report.

The test report forms the basis for an assessment by insurers. VdS experts are in different countries officially recognised by the building authorities and can also assess the quality of your fire protection systems for compliance with applicable building regulations. In case of gas extinguishing systems, the VdS test report also documents expert inspections in accordance with the guidelines of the employers' liability insurance associations.

By combining these types of inspections we are able to offer our customers great added value and save them time and money.

Inspections performed by our highly skilled experts after the completion, extension or modification of your fire extinguishing system ensure that you have tailor-made protection that matches your individual processes and your individual risk.



Inspection of wall hydrants, exterior hydrants and risers

In case of fire, hydrant systems offer personal protection and provide a secure water supply for the fire brigade. This is why in many countries government regulations specify that initial and follow-up inspections of hydrant systems must be performed by recognised experts

VdS experts ensure this for you by measuring the flow rates as well as minimum and maximum operating pressures of your emergency water supply. They can also check and verify the overall installation of the hydrant system, including any interfaces with other technical equipment in the building, such as your sprinkler system.



Voice alarm systems

Voice alarm systems are becoming increasingly important because in the event of a fire they can give detailed instructions for guiding persons unfamiliar with the premises to safety. Voice alarm systems are able to deliver various automatic messages in all affected areas or live messages by the security personnel or the fire brigade.

That is why voice alarm systems (which are activated by a fire detection system) belong to the group of alarm systems. In terms of building regulations, they are considered to be part of technical installations and equipment.

As usual, the prompt and reliable support from VdS will enable you to meet every requirement.

In addition to the necessary inspections of the voice alarm systems, our engineers will also check speech intelligibility and relevant acoustic parameters in the alarmed areas. This enables you to fully prove that your voice alarm system reaches every person on your premises.

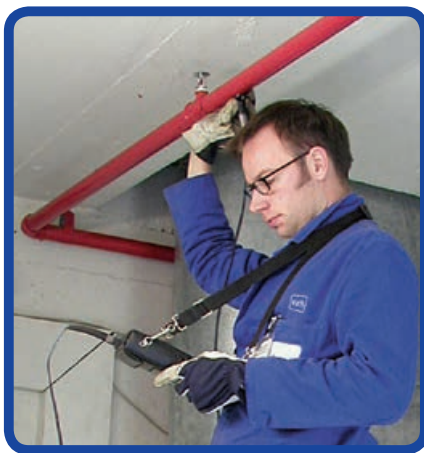
Smoke test for critical fire detection projects

In rooms with high ceilings, such as production halls, atriums or airport terminals, and in IT rooms with a high air recirculation rate, smoke may be detected too late. In these critical environments, VdS uses a smoke generator to optimise detector design and configuration.

The generator was specially developed by VdS and produces test smoke via pyrolysis. Even under very unfavourable conditions this compact unit produces sufficient smoke for a reliable on-site test from a very small quantity of incendiary material. Smoke from the generator corresponds to smoke from a real fire without producing significant heat or smell and without contaminating your rooms or goods.

The test requires no measuring equipment or other devices that would interfere with your operating processes. We were particularly keen on developing a very compact and lightweight smoke generator, enabling us to work even in difficult-to-access areas.

We will be able to tell you immediately whether your fire detection and fire alarm system is completely reliable – regardless of its complexity.



25/12,5-year inspections

Ageing and other effects can completely block the flow of water through pipework.

Sprinkler pipes are subject to corrosion and other atmospheric and operational influences which have a significant impact on the reliability and performance of extinguishing systems. Sprinklers and pipework are particularly susceptible: during revision inspections they can only be visually inspected from the outside.

This is why wet pipe systems must be more thoroughly inspected after 25 years and dry pipe systems after 12,5 years. VdS will perform a non-destructive test of your pipework without any significant interruption of your business continuity.

Ultrasonic measurements from the outside and endoscopic investigations through the sprinkler openings will detect any deposits, incrustations and corrosion damage. In addition, we will remove a number of sprinklers to exactly determine their performance in our laboratories.

Door fan test for gas extinguishing systems

If your protection concept includes gas extinguishing systems you need to know if there are any leaks in the protected room. VdS engineers have developed a door fan test for raising or lowering the amount of pressure in the protected area and precisely determining any outflow. So you will exactly know the size of the room's leakage area.

Our experts will accurately calculate the anticipated hold time of the extinguishing gas. With the VdS door fan test, costly and time-consuming flooding tests are reduced to the necessary minimum.



Fire-resisting closures

Fire-resisting closures, including self-closing doors, dampers or curtains, are designed to prevent the penetration of fire or smoke through openings in walls and ceilings for a defined period of time. In many locations, such as industrial plants, airports, public assembly areas or warehouses, fire-resisting closures provide essential protection.

In accordance with the terms of approval, fire-resisting closures for conveyors have to be subjected to an expert inspection. The VdS Inspection Services have been approved by the German Institute for Building Technology (DIBt) as an inspection body for the installation of fire-resisting closures.

VdS experts can ensure compliance with the terms of approval as well as the failure-free operation and correct functioning of the systems on your premises.



Fire protection systems for special applications

These systems are developed for specific applications, e. g. spark extinguishing systems and extinguishing systems for kitchen protection.

Spark extinguishing systems

Sparks are a “burning issue” in pneumatic conveyor equipment, e.g. in wood processing plants and in the textile, food, pet food, leather, rubber and chemical industry.

Sparks ignited in processing machinery can quickly reach adjacent system components via the conveyor line and cause smouldering fires that can – in a very short period of time – develop unnoticed into major fires or dust explosions.

Spark extinguishing systems provide reliable protection. Special sensors detect ignitable sparks directly in the conveyor line and stop them using extinguishing nozzles with pinpoint accuracy. The operation and performance of these fire protection systems must be regularly inspected to ensure that they continually offer optimum protection.

Kitchen protection systems

In kitchen fires, contact between the extinguishing water and burning fat can cause a fat explosion. Special extinguishing agents foaming up on the surface of the fat cut off the oxygen supply and prevent reignition.

We will make sure that your system really works, is reliably protecting your staff as well as your premises.

■ Risk analysis and assessment

Our risk management experts support operators, insurers and other interested parties with their extensive knowledge to in the analysis and assessment of all fire-related risks. You will profit from more than one hundred years of VdS expertise in loss prevention.

Based on their analyses and evaluations our experts will produce a risk-specific assessment. As usual, VdS will provide you with very specific and directly applicable solutions and recommendations for preventive fire protection and provide general information to reduce your individual risks.



■ Staff instruction on gaseous extinguishing agents

In addition to VdS inspections, our experts will also support you in developing a practice-oriented protection concept and provide staff instruction.

Your employees will know exactly what to do when a gas extinguishing system has been activated.

VdS inspections not only ensure that your complex extinguishing technology is completely reliable – you can also clearly document that you have implemented all the required technical and organisational measures for personal protection.

■ Expert opinions

In specific issues of technical fire protection, our experts will support you by inspecting conditions and delivering appropriate expert opinions. This will help you to assess your protection concepts, rectify deficiencies and determine the performance of your extinguishing system in the event of a fire.

For special applications and innovations developed by you or your suppliers, VdS experts will also conduct their own fire tests to assess specific risk potentials and protection options. In the past, this approach enabled us to develop – together with the customer – more compact storage areas, resulting in substantial cost savings while maintaining optimum VdS-inspected fire protection.



VdS Inspection Services are your easy solution for optimum fire protection.

Rely on 100 years
of experience

Plan reviews, approval and revision inspections by VdS experts give our clients the safe knowledge that their life-saving fire protection technology will work under any operating conditions.

With VdS, you will detect any deficiencies immediately – and not while fire rages.

Why choose VdS?

- VdS has been minimising fire loss for over 100 years. Our experts offer unique technical knowledge resulting out of over 26,000 system inspections every year.
- We can combine inspections for insurance purposes and proof of compliance with building regulations to save you valuable time and money.
- VdS inspections give you full reliability right from the planning phase of your fire protection systems down to the regular revision inspections.
- Thanks to the VdS laboratories, our membership in all major national and international standardisation committees and our worldwide practical experience, we always know which new technologies will provide you with reliable protection. By constantly revising VdS guidelines we react directly to market developments and inform our customers accordingly.
- We are happy to combine the necessary inspections of your existing fire protection systems, such as fire detection/alarm systems and fire extinguishing systems. You will benefit from additional savings and minimum expenditure as well as the high level of VdS quality.

Why choose VdS?

The short answer: So that you can be sure your fire protection systems will work in an emergency.

We look forward to hearing from you:

Your contacts

VdS Schadenverhütung GmbH
Inspection Services

- Berlin Office**
+49 30 55 49 33 13
tpberlin@vds.de

Darmstadt Office
+49 6151 99 58 880
tpdarmstadt@vds.de

Cologne Office
+49 221 285 88 00
tpkoeln@vds.de

Hamburg Office
+49 40 25 19 410
tphamburg@vds.de

Munich Office
+49 89 54 46 260
tpmuenchen@vds.de

Plauen Office
+49 3741 52 63 20
tpplauen@vds.de

Czech Republic Office
+420 28 65 81 270
prag@vds.de

Netherlands Office
+31 481 466 262
nederland@vds.de

Poland Office
+48 22737 7249
warszawa@vds.de

Switzerland Office
+41 62 84 20 172
rmuelli@vds.de

Your contacts

Office	serving
Berlin	Estonia, Latvia, Lithuania, Russia, Ukraine, Belarus
Darmstadt	France, Portugal, Spain
Hamburg	Denmark, Finland, Norway, Sweden
Köln	Belgium, Greece, Great Britain, Luxembourg, Netherlands, Turkey
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Should you have any questions regarding countries not listed here, please contact VdS Schadenverhütung, Inspection Services, Mr. Harald Bollig, phone: +49 221 77 66 151, fax: +49 221 77 66 308, e-mail: hbollig@vds.de

Further info: www.vds.de/inspect