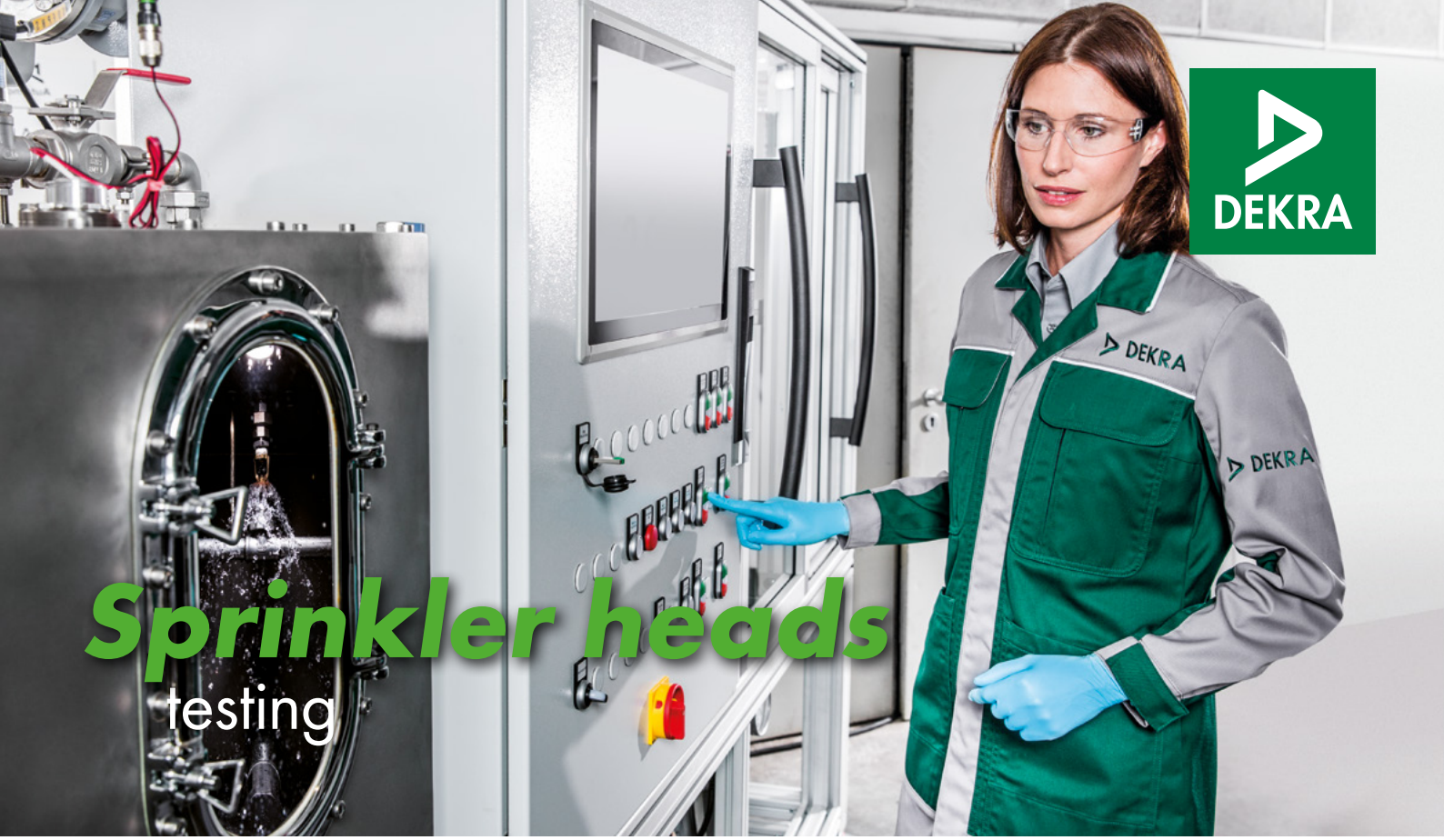


Sprinkler heads testing

Ensuring that everything flows smoothly: DEKRA laboratory experts ensure the safety of your sprinkler system

Sprinkler systems are being built into an increasing number of industrial fi rms, hotels, offi ce buildings, and shopping centers in order to rescue lives and assets in the event of a fi re – with success. Such sprinkler systems have a very high level of eff ectiveness and can nip potential fi res in the bud! For them to work reliably when things get serious, regular tests are required.

Accredited sprinkler test bench

Sprinkler systems as well as the connected pipelines must be inspected directly on site by a technical expert. For wet sprinkler systems, such an inspection is due for the first time after 25 years. For HTS dry sprinklers, a period of 6.25 or 12.5 years applies, depending on the type of system. Th ere are partially deviating intervals for testing the function, i.e. activation and water distribution, of sprinkler heads.

DEKRA off ers laboratory tests of sprinkler heads from used sprinkler systems – including and especially for experts and for the inspection of water extinguishing systems of competent persons. Th e laboratory testing of the sprinkler heads takes place pursuant to Annex A, VdS 2091 at the DIN EN ISO/IEC 17025-accredited sprinkler test bench at DEKRA.

The formula for the laboratory test: 80:20

For further laboratory tests, sprinkler heads must be taken from the system on a sample basis. Subsequently, these sprinkler heads are subjected to laboratory testing pursuant to VdS 2091 with reference to DIN EN 12259 at the DEKRA Laboratory for Materials Engineering and Damage Analysis in Saarbrücken.

Th e sprinklers are taken by an expert on site. Th e number of sprinklers for the laboratory test depends on the size of the water extinguishing system. 80 percent of the sprinklers taken are subsequently tested with respect to function in the DEKRA laboratory at the sprinkler test bench. Th e nominal activation temperature is tested on the further 20 percent of the sprinklers.

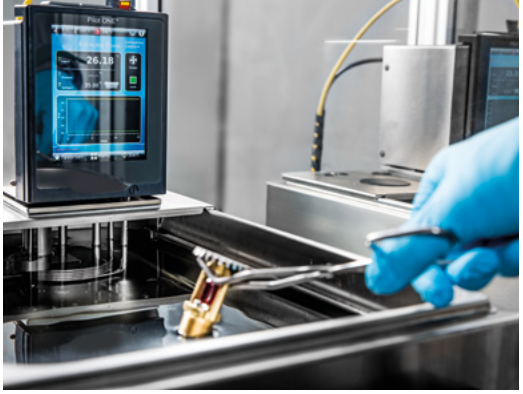
What DEKRA offers you

Our experts at the laboratory locations in Stuttgart, Halle, and Saarbrücken are at your side for all matters related to materials testing and damage analysis.

Benefi t from these and other services:

- Expert advice and support
- Accredited laboratory analysis and accredited test processes
- Comprehensive range of services
- Fast, reliable results
- Meaningful test reports and expert reports
- Where needed, professional testing or sampling on site – without unnecessary hindrance to your workflows

We support you right from the start: practically, without complications, and continuously. Always with the focus on your objectives.



Everything in order: the test workflow

80 percent of the sprinkler heads taken are loaded with 350 mbar water pressure and activated with a hot-air blower. Subsequently, the K factor (specific indicator of the water throughflow) of the sprinklers to be tested is determined at the pressure levels 350 mbar, 1 bar, and 3.5 bar. In this test, the sprinklers must fulfill the specific nominal specifications.

The nominal activation temperature is tested on the other 20 percent of the sprinklers. To this end, the sprinkler heads are heated to the activation temperature in a heated water bath with a defined temperature profile.

Pursuant to the Guidelines for Sprinkler Systems – Maintaining Operability pursuant to VdS 2091, further measures become necessary if 2.5 percent of the sprinklers should fall into the results class "Fail" or 25 percent of the sprinklers should fall into either the results class "Fail" or "Hindrance."

Sprinklers taken from system

80%

Water throughflow inspection

- At 350 mbar water pressure, the sprinklers are activated using a hot-air blower
- Determination of K factor at 350 mbar, 1 bar, and 3.5 bar

20%

Nominal activation temperature inspection

- Heating of the sprinkler heads in water or glycerin bath up to activation

Our experience

Everyone is talking about safety. We are doing something about it. Regardless of whether it is for information, measuring, testing, or advice: We are not far away from you. Or do you know any other safety service provider who is there for you all over Germany with such a comprehensive, standardized range of services and consistent quality?

Get an idea for yourself of our range of services or contact us directly.

We look forward to talking to you.

Other services you benefit from

To ensure the safety of the entire system, non-destructive as well as destructive material testing can be carried out on supply lines and add-on parts of the entire fire extinguishing system, in addition to the sprinkler test. We also offer damage analyses, such as in the event of leaks or signs of corrosion, as well as expert reports in cases of damage.

DEKRA also offers you professional testing and consultancy services in many related areas. These include:

- Fire safety and electrical engineering
- Material testing
- Hazardous substance management and analysis
- Waste management and environmental protection
- Recommendations, measures, and cost estimations for damage elimination/repair

and many more.

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