

Evolving the well-established

vdz

**Service
Offer**

Environmental
measurements

High-quality services from a single source

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Scope of activities – environmental measuring

Airborne pollutants, noise and vibrations are emissions that are given off by industrial installations or are caused by traffic and transport.

Protection against harmful environmental effects is ensured by emission limits and other conditions relating to emission monitoring. In many countries, adherence is to be demonstrated by means of regular measurements that have to be carried out by a recognised monitoring body.

As the environmental monitoring body at VDZ Service GmbH, we have been recognised in this capacity for many years and offer a comprehensive range of services. In this way, we can support you in the legally secure implementation of your requirements.

Customer-specific inspection concepts and accompanying measurements for process optimisation complete our service profile.

Measurement of emissions

Emission measurements

Our accreditation in accordance with EN ISO 17025 and our state recognition as a monitoring body result in stringent requirements with regard to the quality and independence of our work and the training of our employees.

Our measurement equipment fulfils a broad spectrum of the highest requirements, which means that we can offer you a comprehensive range of services.

We can measure the following emissions for you:

- Inorganic gases such as carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen oxides (NO_x), hydrogen chloride (HCl), hydrogen fluoride (HF), ammonia (NH₃)
- Organic gases such as dioxins and furans (PCDD/F), benzene, toluene, xylenes (BTX), polycyclic aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), hexachlorobenzene, formaldehyde and many more
- Dust and heavy metals such as arsenic, lead, cobalt, chromium, nickel, vanadium, cadmium, thallium, mercury, manganese, tin, selenium, tellurium and many more
- Greenhouse gases such as carbon dioxide (CO₂), methane, and nitrous oxide (N₂O)
- Measurement components for process optimisation such as sulfur trioxide (SO₃)
- Additional parameters on request

We would be happy to advise you on the implementation of your measurement tasks and issues in the form of a valid, efficient emission measurement programme.

We provide our services in Germany and internationally too.

We have already carried out a wide range of individually tailored measurement projects in Europe, the Middle East and South-east Asia. Our work is always based on internationally recognised standards in measurement technology – primarily on European and US EPA standards.

Testing of measurement equipment

Functional tests and calibrations

As part of plant monitoring, the operators of equipment that requires special permits are obliged to measure their emissions continuously using stationary measurement equipment and to report these emissions to the state authorities.

Thanks to our experience and recognised status as an environmental monitoring body, we are able to test the proper installation of continuously operating emission measurement devices in Germany and abroad and to carry out regular functional tests and calibrations.

Our experienced team carries out the prescribed functional tests (AST) and calibrations (QAL 2) in accordance with EN 14181 for measuring devices such as the following:

- Total dust measurement devices
- Measuring devices for analysing gaseous components, e.g. NO, SO₂, O₂, TOC, CO, CO₂, NH₃, HCl, H₂O
- Multi-component measurement systems
- Mercury analysers
- Volumetric flow rate measuring instruments

We would also be happy to support you with the following issues:

- Selection of suitable measurement systems
- Advice on the setting up of measuring points in a manner that adheres with standards
- Providing training to your employees on all issues relating to measurement technology, e.g. QAL 3
- Support for discussions with authorities

Mercury – A focal area

Measurement of mercury emissions

Particular emphasis is placed on the measurement and reduction of mercury emissions because of this element's high environmental relevance. The monitoring of mercury emissions is therefore required to meet the highest quality standards.

For many years, we have been a leader in the area of the measurement and analysis of mercury in exhaust gases from industrial installations and in the functional testing and calibration of continuously operating mercury measurement devices:

We can offer you the following services:

- Introduction to the relevant legal requirements and development of an individually tailored measurement concept
- Long-term mercury measurements using sorbent traps
- Speciation measurements to determine the bonding form of mercury
- Monitoring of mercury reduction measures
- Direct determination of mercury on site immediately following measurement for rapid results calculation and plant optimisation
- Creating input/output balances for mercury in industrial installations
- Rental of continuously operating mercury measurement devices for the handling of individual process-technology issues
- Carrying out QAL3 tests for quality assurance for continuously operating mercury measurement devices
- Measurement of mercury immissions

Legally secure emission monitoring

Compliance Check – What is this?

The operators of industrial installations are obliged to adhere to the applicable national environmental laws and to implement conditions stipulated by the state in a legally secure manner.

As a consequence of measurement technology that is becoming ever more complex and of changing legal requirements, implementing necessary changes to electronic evaluation equipment for the registering of continuously measured emission parameters in a quick, error-free manner is an important task.

We support you in ensuring alignment between all permit requirements and parameterisation for electronic evaluation equipment and in the updating of this equipment in the case of necessary changes.

This includes:

- Creation of parameterisation concepts
- Testing of the parameterisation of electronic evaluation equipment at regular intervals
- Testing of adjustment for reference values and normalizing
- Testing of changes made during the year
- Testing of formulas, e.g. for the calculation of mass flow rates of emissions
- Checking of the S 9 and S 10 meters for exceedances of the upper limit of the valid calibration range

We prepare a certificate relating to the testing carried out that is referred to as the “Compliance Check”, which documents the correctness of emission monitoring that is based on continuously recorded measurement data.

Contact



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