TÜV SÜD Industrie Service

Choose certainty.
Add value.

Inspection and testing of engineering structures

DIN 1076

Damage to bridges and other engineering structures in connection with roads can cause considerable safety risks. Frequently, damage goes unnoticed until it has progressed to an advanced state, thus causing unnecessary additional repair costs.

Legal background

To ensure structural stability and safety of use, German legislation provides for periodic inspection and testing by expert engineers with DIN 1076 "Engineering structures in connection with roads – inspection and testing". Provisions focus on engineering structures such as **bridges** with all kinds of structures and designs, **under-passes** and **culverts, traffic management systems, supporting structures, noise barriers, rainwater harvesting systems** and similar structures.

They must be subjected to thorough inspection and testing every six years and to a simple inspection every three years. Additional inspection and testing may become necessary for special reasons, e.g. after flooding, fire or a road accident.

All tests and inspections are based on the logbook of the engineering structure. It includes the description of the structural design and the key data of the structure and lists all measures performed.

TÜV SÜD services

The impartial and recognised expert organisation TÜV SÜD and its Structural Engineering business area offer comprehensive services. Our specialists provide expert and cost-effective services connected with the inspection and testing of engineering structures:

- Logbook preparation
- List of engineering structures (recording of all engineering structures)
- Final inspection prior to commissioning
- Carrying out all primary and secondary inspections
- Special inspections and tests, for example after flooding, fires, etc.
- Classification of engineering structures as per DIN 1072
- Grouping into military categories in line with STANAG 2021

- Structural review of load-bearing capacity and grouping into load categories
- Measuring the concrete cover of the reinforcement
- Chemical and physical analysis of concrete and steel, e.g. carbonation, chloride content, testing of weld seam, etc.
- Concrete engineering report
- Failure analyses
- Destructive and non-destructive strength test
- Non-destructive testing of steel components, welds and connecting elements by means of eddy-current, ultrasound, dye penetration and radiation testing
- Restoration and repair recommendations and cost estimates
- Quality assurance during construction measures

Your benefits

- **Cost effectiveness**
  Timely recognition of repair needs and the damage limitation it involves minimise costs and can significantly extend the life of your structure. Our experts provide restoration and repair recommendations, always keeping cost-efficiency in mind. This helps to save costs and eases the constraints on public funds.
- **Legal certainty**
  The excellent reputation of the TÜV SÜD brand guarantees highest acceptance of our reports and certificates.
- **Technical expertise**
  TÜV SÜD's structural engineering experts offer proven expertise and longstanding international hands-on experience. As our experts are represented in task forces and participate in the preparation of national and international directives and standards, we are well versed in legal requirements and the state of the art.

Interested in learning more about our services? Call us! We will be happy to submit a quotation with no obligation on your part.

We will be happy to advise you in more detail. Contact us. We operate internationally.

TÜV SÜD Industrie Service GmbH www.tuev-sued.de/is
Civil Engineering Telephone +49 (0)89 5791-3809 Email: bautechnik@tuev-sued.de