Strukton and subsidiaries

Strukton

Survey & Monitoring

However many calculations and estimates we make as professionals in large, complex and often high-risk projects, our ultimate aim is to achieve the highest possible degree of certainty. Strukton Survey & Monitoring specialises in obtaining all the required measurement and monitoring data, analyses materials, develops new methods and techniques, and transforms the resulting information into clear reports. This enables construction teams to act quickly and, if necessary, urgently, and to make adjustments and changes where appropriate. Whether they are deep under the ground, in the open sea or at the top of a tall building. In the preliminary stage, but also during the execution of a project. Lessons learned are transformed into solutions, which are then deployed to resolve new issues.

Survey & Monitoring: our field of operations

Measurements alone do not provide an answer to a question or a solution to a problem. This is why we do more than just measuring.

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Geocon: Ready to go under?

Geocon, the name under which we operate in the global market, is highly regarded in the immersion industry for both tunnel elements and caissons.

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Measurement & Surveying: the key to success

To us, carrying out measurements is just one aspect of measurementsurveying. Measurement Survey is an integral part of the construction method and is performed during the various construction stages until the project is completed.

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Research: research before innovation

By conducting advance strategic research into technology, feasibility and dependency, you learn about the opportunities and possible risks of innovations.

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Data reporting: available, usable and reliable

In order to generate measurement data, we use a variety of measurement systems and sensors available on the market

and our own SMARTbox, which we developed ourselves.
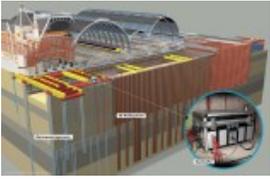
The SMARTbox: effective at any stage (and as versatile as Lego)

In this process of requirements and opportunities, our flexible monitoring system the SMARTbox is a crucially important tool.

Field trials: starting building with a head start

Investing in a practical test during the preparation stage of a project can give you valuable information about how to manage the project. You can shorten the learning curve and that will result in faster, more reliable and more effective construction.

Force measurements: safe construction at lower costs

Optimum use of force measurements, ensure that a design is demonstrably safe and allows the work to be optimised even during the execution stage.

Maturity of concrete: establishing the right time for removing shuttering and loading

An understanding of the hardening process gives you an important indication of its strength development. This determines or predicts the right moment to remove formwork or loading the concrete.

Measuring deformation: control based on risk

Deformation and subsidence are notorious side-effects of construction work. Normally, all possible effects are calculated in the design stage and a construction method is selected that limits these effects. But these calculations offer no guarantees. Strukton Survey & Monitoring has a variety of methods to verify calculations and, if necessary, to adjust the construction process.

Automatic Total Stations: insight into rail Deformation

Our monitoring service can be used for the purpose of identifying the deformation of rail tracks. This service will map any rail track deformation 24/7.

Inclination measurement: early warning in the event of horizontal earth dislocation

We conduct inclination measurements to map any horizontal soil shifts. These measure any movements of the construction pit wall or soil and can be used as early warning for possible deformation of nearby buildings.

Settlement rods: before subsidence becomes a problem…

If threshold values are exceeded, an alert message is issued, allowing you to take action before any damage occurs.

Groundwater: wet or dry feet?

Groundwater level measurements provide a unique insight into the subsoil. These measurements are used, for example, when the groundwater table has to be lowered.

Measuring vibrations: to stay inside the limits

In the Netherlands, the SBR guideline (Stichting Bouwresearch ©) is the standard for the way vibrations must be measured as well as for the permissible values for various structures.

Sound measurement: dealing with noise-makers

Unfortunately, not all construction projects are noiseless. But we always try to keep the noise nuisance within acceptable limits for local residents. Furthermore, the competent authority may prescribe the use of sound monitoring in compliance with the relevant statutory requirements.

Time-lapse: speeded-up promotional films

Time-lapse is a technology whereby the frequency with which film images are captured (the frame rate) is much lower than the frequency at which the images are viewed. Played at normal speed, time seems to speed up.

Non-destructive testing methods: damage-free quality check

Crosshole Sonic Logging (CSL) and Tomography are testing methods based on ultrasound. The best-known use of this technology is to determine the quality of diaphragm wall joints, but it can also be used to determine the quality of bored piles, grout solids and other (cement-based) structures and to locate irregularities without damaging the structure.

Structural Health Monitoring: optimum management with less disruptions

Increased traffic and an ageing infrastructure are making huge demands on our civil engineering structures. Strukton Survey & Monitoring provides the knowledge and equipment required to diagnose and predict the lifespan of those structures.