



In rock and base engineering anchors are applied as construction element. They stabilise the rock by absorbing axial load and shear forces. Especially in case of continuously installed anchors the observing control of the initial stressing force of anchors as bearing elements of a construction is very important.

In most cases the initial stressing force of light soil and rock anchors is secured by installing them with the help of a torque wrench adjusted to a desired value. We recommend to control the torque of the wrench by installing load cells at particular anchors.

The initial stressing force of light, mobile anchors and of heavy ones, where a tension device is normally used to tighten them, should always be controlled by anchor load cells. Furthermore the temporal development of the initial stressing force can be observed, which is very complicated with other methods as for example by the lift-off test.

With continuously installed anchor load cells the initial stressing force can be determined at any time, the measured values can be recorded by remote transmission or automatically scanned by a data acquisition system at a fixed measuring rhythm.

Among the different types that are used as anchor load cells

- the electric anchor load cells (the compression is measured by strain foil gauges) and
- the hydraulic anchor load cells (the initial stressing force is measured by a hydraulic pressure cell)

are the most important ones.