

Pilatus Arena Kriens

Manual and automatic monitoring measurements



📍 Kriens, Switzerland
👤 Halter AG
🕒 2022 - 2026

Services

- ◆ Crack detection
- ◆ Construction fixed point network & staking out
- ◆ Manual monitoring measurements on roads, excavations and utility lines
- ◆ Inclinator measurements
- ◆ Automated track and platform edge monitoring
- ◆ Automated groundwater level measurements (42 sensors)
- ◆ Panorama webcam

Technologies

- ◆ Total station for automatic track monitoring
- ◆ 42 piezometer measuring systems
- ◆ Panorama webcam
- ◆ Password-protected customer portal with 24/7 access

The Pilatus Arena in Kriens is an urban development landmark in the Lucerne region!

The sports and event arena with national and international appeal will offer space for 4,500 spectators. The multifunctional hall will host indoor sports events such as handball, tennis, indoor football, floorball, volleyball and basketball.

To finance this hall, 2 residential buildings with a total of 415 rental and owner-occupied flats are being built on the same site. The "Pilatus Tower" skyscraper with a height of 110 metres and 36 floors will be the tallest high-rise building in the canton of Lucerne and is scheduled for completion in 2026.

One particular challenge was the demanding groundwater situation. There are 3 confined aquifers beneath the subsoil, some of which have a theoretical water table above the natural ground level. When drilling into these aquifers, pipes protruding from the ground had to be used to ensure that the groundwater did not flood the site.

All measurement results are visualised on the TEDAMOS web platform. Automatic alarms are sent when limit values are exceeded by one of the various measuring systems, so that safety on the construction site is guaranteed at all times.-