



Veidekke monitors underground concrete works with Maturix

Real-time concrete **monitoring for underground **success****

As part of Stockholm's future wastewater treatment system, Veidekke is building new underground structures in rock beneath Hammarbybacken. The work includes extensive concrete elements such as thick roof slabs, where precise timing and clear documentation are essential — particularly when it comes to formwork removal and safety planning.

To support the project, the team decided to implement a sensor-based system for real-time concrete monitoring. After evaluating several options, they selected Maturix due to its user-friendly interface and flexibility in adapting to different casting scenarios.

"The choice was between Maturix and a different brand, but in the end Maturix won due to the simple user interface. It's easy to learn and understand, and has many settings for different scenarios."

– Tomas, Site Supervisor, Veidekke Sweden

Working underground adds several layers of complexity. Access to castings is limited, temperature conditions fluctuate, and decision-making around concrete strength often happens under time pressure. By using a real-time monitoring solution, Veidekke can track the development of both temperature and strength remotely — from smartphones or desktop — without needing to rely on manual checks or frequent testing of cubes.

This has proved especially valuable during the colder months, when the curing process can slow down. By keeping a close eye on surface temperature data, the team has been able to apply heating or cover elements in time to ensure consistent strength development. For structural elements such as roof slabs, they define a target strength and follow progress digitally, which helps improve planning and reduce wait times for formwork removal.

In addition to supporting field decisions, the system has also helped simplify documentation. With lightweight hardware and a simple connection setup, it's easy to deploy across the site. Reports can be exported directly to PDF and emailed, which has reduced the amount of time spent manually collecting and compiling data.

"To receive fast documentation by email makes our admin work easier. I'd definitely want to use the system again — and I'd recommend it if anyone asked."

– Tomas, Site Supervisor, Veidekke Sweden

Key benefits for Veidekke:

- Improved planning with live insight into temperature and strength development
- Safer and more efficient formwork removal based on real-time strength tracking
- Continuous monitoring of surface temperature during cold-weather casting
- Simplified documentation with fast PDF exports and email delivery
- Lightweight and easy-to-use system setup in demanding underground conditions