



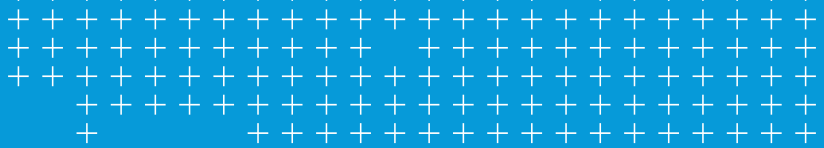
# Drill & Blast Specialist Moldestad Fjellsprengning AS raises Operation Safety, Predictability and Efficiency with Trimble Groundworks



Safety and predictability are two key aspects of being in the drill and blast business. After all, working with explosives requires absolute control. So when Clement Moldestad, owner of Norwegian specialist Moldestad Fjellsprengning AS researched machine control technology for his growing business, he found that Trimble was the best choice to support his ambitions, offering an end-to-end solution ensuring his business runs smoothly, safely and efficiently.

## Solutions

- ▶ Trimble® Groundworks Machine Control System
- ▶ Trimble Business Center
- ▶ Trimble Connected Community



# overview

Moldestad Fjellsprenkning AS is a drill and blast specialist company operating in the Western part of Norway. The five-person operation prepares sites for contractors, developers, local and regional governments and private citizens, enabling the construction of buildings, roads, structures, housing developments and private homes. In addition to construction preparation work, Moldestad is also involved in quarry blasting.



**Location**  
Os (Vestland), Norway

## BUSINESS CHALLENGE

Optimize site safety, support office-to-field integration, raise business efficiency.

### Safety, Predictability, Efficiency

The rock and heavy clay soil in large parts of Western Norway offers Moldestad the opportunity to create a thriving business in drill and blast operations. Contractors, developers, local and regional governments and private citizens alike call upon the specialist to clear out and level sites for the construction of buildings, roads, structures, housing developments and even private homes.

“When we are brought in to clear a site, we do an extensive survey of all the circumstances,” Clement Moldestad explains. “We know the type of material we’re dealing with, as we’ve been in this business for years. But what is new every single time is the required depth of the blast holes, and the exact location. Because in many cases we’re working up to inches from a building or some other sensitive structure, demanding vibration control. Safety and predictability are always key in this business. But efficiency is the third crucial element. Because we cannot have overblast, obviously not from a safety perspective, but also not from a business standpoint. Drilling is expensive, as are detonators and explosives. Trimble technology supports us in all three aspects.”

### Office-to-Field

Moldestad is a small operation, with Clement running the business from the office as well as sharing time in the field with the operators working the company’s two Sandvik drill rigs. The rigs, one a cabin rig and the other

one a remote controlled crawler-based unit, are equipped with the Trimble Groundworks Machine Control System for Drilling and Piling. This machine control technology is the ideal solution according to Clement for his industry. It works in total harmony with Trimble Business Center, the software with which Moldestad creates the drill plan and starts the process. Based on the survey data gathered with a rover and the project drawings, Clement Moldestad draws a detailed plan in Trimble Business Center comprising the exact dimensions, direction, inclination and depth of the drill holes needed for the blast. This needs to take into account the drill bottom variations throughout the project as a result of elevations, but also of the presence of underground sewer pipes and concrete foundations. The drill plan also includes lines for the locations of concrete walls that are to be built.

“We do in fact start with Trimble Business Center in the tendering stage,” comments Moldestad. “As we do all the calculations upfront - which only takes an hour usually - very early on we get a complete insight into the financial side of a project. We know the drill plan, the number of detonators, the amount of explosives and the volume of rock moved during the course of the project. In short: it gives us the data that runs the Moldestad business.”

### Field-to-Office integration

Experience, combined with technology such as Trimble Business Center and Trimble Groundworks, has led Moldestad to be extremely accurate in its drill patterns, which have developed into such intricate outlines that blasts





can be done up to 25 centimeters from existing buildings. Trenches and slopes can also be blasted in to accommodate water drainage on the edge of properties. The drill plan is pushed out to Trimble Groundworks on the drill rigs via

Trimble Connected Community, and the rigs are ready to go as soon as they are set up on the site. Any last minute changes can immediately be shared with the on-board systems. No staking out is necessary as the GNSS technology in the Trimble Groundworks system knows the exact location of the rigs. The system fully automatically stops the drill as soon as it has achieved the required depth. The two rigs (if both are on the same site) auto-synch their progress through map sharing for the most efficient deployment of the machines, giving the office a real-time view on progress and the details needed for reporting.

## Flawless execution

“This is an industry where mistakes can have serious consequences,” says Moldestad. “From a safety standpoint, but also from a business perspective. The combined Trimble solutions enable us to have a truly integrated workflow. We do exact volume calculations, draw up a flawless drill plan, have the rigs in and out of the site on time, and have the reports to prove we did the work to the exact specs. Our regular customers have come to expect and even require the use of the Trimble technology because of the level of predictability and quality it enables. Some customers insist on staking out the site themselves, but there really is no need. The integrated Trimble systems have never been wrong, and we simply never have to come back to do corrections. This investment has paid for itself several times over.”







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## TRIMBLE CIVIL CONSTRUCTION

10368 Westmoor Drive  
Westminster, Colorado 80021 USA  
800-361-1249 (Toll Free)  
+1-937-245-5154 Phone  
[construction\\_news@trimble.com](mailto:construction_news@trimble.com)