

GEOTECHNICAL DRILLING

FEEL THE SONIC VIBES !
Make your difficult works successful



Main applications :

Coring mixed layers

Do you need to take samples in wet sands or in a geology with mixed layers? The Aqualock can handle it all, either for continuous sampling, or to take sample only at the desired depth (discrete sampling). It will even take samples from an unsaturated layer.

The core barrels (simple or double), used in roto-sonic with Tungsten carbide bits, are more adapted for rocks and very hard soils, always in the same goal: to obtain 100% sample recovery with a higher lifespan for equipment.



Sonic combined with traditional equipments

In its standard configuration the sonic head enables to realize drillings with augers and Down The Hole Hammer. In addition, the double rotation head option offers the possibility to make rotary drillings (tricone bit, drag bit) and all types of conventional coring. The hydraulic head sliding also enables the setting of an automatic hammering system for penetration tests (SPT), standards window samplers, slotted casings...

All these equipments can be used in association with sonic casings.



Well installation

The use of casing and lost cone creates an efficient drilling process that can minimize your waste by at least 70% compared to conventional drilling methods. With sonic you can drill through cobbles, boulders, hard layers or lenses. Even in heaving sand formations, perfect installation is still possible.

Main benefits of Sonic method

- » Fast drilling and sampling in any geology, even very heterogeneous soils
- » Unequaled speed : from 4 to 6 times higher than conventional techniques
- » Precised and reliable results for samplings, undisturbed or very slightly
- » Used in combination with the traditionnal technics (SPT, standard core barrel, Auger, Down The Hole Hammer...)
- » Option data acquisition for recording and visualization
- » Clean drilling, with few or even no injection
- » Practical and safety method



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Our equipments



- Sonic rigs perfectly adapted for geotechnical investigation
- The innovative soil sampler AquaLock for high speed undisturbed sample production, especially alluvial deposits
- Single or double core barrels suitable for any geology, including gravels, boulders, rocks, etc...
- Casing systems for telescopic purposes
- Toolings for destructive drilling
- Hydraulic shifting head system to use conventional equipments if needed (tricone/drag bits, conventional coring equipments, etc...)
- Highly skilled staff to train your people to work with this equipment at your jobsite, wherever on the globe.

Your challenge



Geotechnical investigations are mostly conducted in difficult circumstances. Sampling results are often not very reliable and drilling takes a lot of valuable time. Drilling in cities requires fast, compact and profitable technology with minimal disturbance for the inhabitants.

Our answer

A large range of sonic rigs with specific soil samplers and rock coring equipments enable to meet precisely all those requirements. Samples are complete and guarantee accurate certified geological data. Those benefits and the stunning drilling speed ensure high productivity rate as well as high quality results for higher profits.

REFERENCE PROJECT

Gennady Voronovitch, Geocentr, Russia

«The use of CompactSonic with the Aqualock system made it possible to Perform all various assignments using one single machine ; the client was astonished about our production speed and quality. They even came on board of our self-leveling floating platform to see with their own eyes why the use of the sonic works so much faster and accurate. As a result we are in a very good position to win additional assignments, leaving the competition virtually without a chance. And with sonic drilling, we have less and less pollutions during our activities. The use of water is not necessary or reduced to the minimum. Thanks to the Aqualock, we can recover really better samples and undisturbed, and in a record time.»



PILOT PROJECT

In order to prove the efficiency of this method, a team can come on site to carry out a difficult and/or target work. For more information or personal advice, please contact us.