

## SONIC DRILLING GEOTECHNICAL DRILLING

**FEEL THE SONIC VIBE !**  
To ensure the success of your difficult working sites



### MAIN BENEFITS OF SONIC DRILLING :

- >> Fast drilling and sampling in any geology, even very heterogeneous
- >> Unequaled speed : from 4 to 6 times higher than traditionnals technics
- >> Precised and reliable results for samplings, undisturbed or very slightly
- >> Used in association with the traditionnals technics (SPT, standard core barrel, Auger, Down The Hole Hammer...)
- >> Option data acquisition for recording and visualisation
- >> Practical and safety method



### 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 and compact technology with minimal disturbance for the inhabitants.

### OUR ANSWER

Our CompactSonic drill rigs, in combination with our special soil and rock coring tools, have proven to produce the correct data in short time. Samples are long, show accurate geological information and show virtually no disturbance. They are the perfect base for accurate geotechnical profiling and reliable laboratory analysis.



The stunning drilling speed, low sound and ergonomically balanced operation make that people like working with our Sonic rigs and smart sampling tools. We produce our rigs and tooling according to detailed and demanding EU standards.

### WE SUPPLY

- Rigs that vibrate down samplers for geotechnical drilling.
- AquaLock core samplers that can rapidly produce perfect samples of wet sands, clay, peat, etcetera
- Core barrel systems (single or double) of all other formations, including weathered rocks... to very hard rock formations
- Casing to work with these samplers and core barrels
- Tooling for destructive drilling
- Hydraulic head sliding system for the using of conventional equipment.
- Monitoring while drilling package with telemetric reporting
- Staff to teach your people how to work with this equipment or to carry out a pilot project.



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### 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. It will even take samples from an unsaturated layer. You can use it for continuous sampling, or you can take your sample only at the depth you desire (discrete sampling).

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



#### Sonic combined with traditionnal 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 conventionnal 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 a very effective drilling process, that can minimize your waste by at least 70% compared to conventionnal drilling methods. With sonic you can drill through cobbles, boulders, hard layers or lenses. Even in heaving sand formations, perfect installation is still possible.



### REFERENCE PROJECTS

#### 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 a 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 additionnal 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.