

GENERAL PRESENTATION

FEEL THE SONIC VIBES !
Make your difficult works successful



Principles of Sonic drilling :

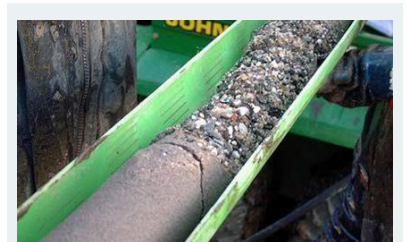
This method is carried out through a sonic head which delivered high-frequency low-amplitude vibration (with simultaneous rotation for hard layers) up to 150 Hz.

It strongly reduces friction on the drill string and bit thus increases penetration speed and facilitates equipment's removing. Thanks to liquefaction (limited to 1-2mm around the borehole inertia effects and a temporary reduction of porosity of the soil).



- » The solution when conventional techniques does not work
- » Constant high sampling rate recovery (up to 100%) even for mixed layers
- » High quality undisturbed or low disturbed samples in any geology
- » Discreet sampling heterogeneous soils without casing (with Aqualock)

- » High speed production: 4 to 6 times faster than conventional techniques, especially in alluvial formations
- » Precision: less than 1% deviation and sampling to the exact desired depth
- » Coring up to 200 meters
- » Equipments lifespan (rods, bits, etc...) higher than conventional ones



- » Clean drilling method without cross contamination
- » The most reliable for investigation of polluted site (nuclear sites, petro-chemical works, petrol stations, etc...)
- » Up to 70% less waste on site
- » No or few drilling fluid used (according to required method)

GENERAL PRESENTATION

Discover the Sonic range

Sonic rigs and various configurations such a crawler, truck, tractor, all with many options (double head for conventional drillings, automatic rods manipulator, etc...). Aqualock (specific piston sampler), sonic core barrels, tubing, lost cones system and conventional drilling equipments.

GEOTECHNICAL DRILLING



WELL INSTALLATIONS



ENVIRONMENTAL SOUNDING

MINERAL EXPLORATION



COLD-HEAT EXCHANGING SYSTEMS



PILING AND MICRO PILING



SEISMOLOGICAL DRILLING

Some examples all around the world (according to client's feedback) :

Country	Projects	Geology	Conventional method - Results	Sonic method - Results
New Zeland	76 mm sampling to 50m on site after hearth-quacke	Gravels, boulders, sands, silt and wood	NQ3 Wireline coring Recovery rate : 40% Production : 15m/day Wear of equipments : very high	Roto-sonic coring Recovery rate : 100% Production : 10-12m/hour Wear of equipments : low
United States	Geotechnical and environmental drilling in 76 and 127mm to 60m	Several soft soils (mix layers) and rocks	Destructive drilling and conventional coring Recovery rate : 30% Production : 8-10m/day Soils contamination : very high	Destructive drilling and coring through Roto-sonic Recovery rate : 92% Production : 5-7m/hour Soils contamination : low
Colombia	122 mm sampling to 30 m for gold exploration	Moene	PQ Wireline coring Recovery rate : 40% Production : 6m/day Samples quality : low	Roto-sonic coring Recovery rate : 95% Production : 4-5m/hour Samples quality : high

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.