



# SONIC

## SDC-390





Sonic Drilling is a soil penetration technique that employs a high-frequency Sonic head to deliver vibration waves of 150hz down the drill string to the bitface. This vibration causes liquification of the soil surrounding the casing or drill string, greatly reducing friction and permitting very fast drilling speeds. The Sonic method can provide continuous samples to depths of more than 100m and has the ability to sample overburden with near 100% recovery.

## APPLICATIONS

### **GEOTECHNICAL**

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With the ability to rapidly drill overburden or river gravels with continuous sampling, the Sonic Rig is the ideal high-speed addition to our current Geotechnical fleet.

### **ENVIRONMENTAL**

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By providing continuous, relatively undisturbed samples with high-speed penetration, the Sonic drill methodology is ideal for monitoring well installation and accurate sampling.

### **GEOHERMAL**

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Sonic is the fastest drill method for Geothermal installations. Once the hole is complete, the casing permits the easy installation of the Geoloop.

### **RESOURCE INVESTIGATION**

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This drill can case and core at high speeds through both solid and unconsolidated materials to depths of over 100 metres, allowing samples of mine tailings and slag pile to be easily obtained.

### **EXTRACTION WELLS**

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By advancing relatively large diameter casing at speeds far superior to traditional rotary methodologies, the Sonic Rig can install extraction wells with unprecedented speed while providing continuous, accurate sampling with minimum risk of cross contamination.



FOR BOOKINGS, PLEASE CONTACT SIMON HAMILTON:

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Terratest's multipurpose Sonic Rig, the SDC 390 is capable of the following methodologies:

## **SONIC**

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- 275mm Diameter Tooling
- 210mm Diameter Tooling
- 150mm Diameter Tooling
- 125mm Diameter Tooling

## **CONVENTIONAL**

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- HQ3 Diamond Core
- PQ3 Diamond Core
- 100mm Down Hole Hammer
- 125mm Down Hole Hammer
- 150mm Down Hole Hammer

## **SAMPLING & TESTING METHODS**

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- 75mm Sonic Sampling
- 100mm Sonic Sampling
- 150mm Sonic Sampling
- 200mm Sonic Sampling
- SPT Sampling
- 50mm Undisturbed Sampling
- 63mm Undisturbed Sampling
- 75mm Undisturbed Sampling
- Shear Vane
- Gus Sampling
- Packer Testing
- Straddle Zone Packing Test
- Core Orientation

## **CONCRETE CORING**

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- 150mm
- 210mm
- 300mm



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# SONIC SDC-390



## SPECIFICATIONS

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Travelling Length	5,842mm
Footprint Length	5,207mm
Width	2,286mm
Weight	13,000kg
Travelling Height	2,312mm
Drilling Height	7,112mm
Ground Pressure	0.86kg/cm <sup>2</sup>

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Drill Stroke	4,020mm
Engine Kw	168Kw
Retraction Force	10,097kg
Down Force	5,610kg
Winch Capacity	1,814kg
Winching Length	6,000mm
Sonic Oscillating Output	150Hz
Oscillating Frequency	222kn
Sonic Rotation	160rpm
Rotation Torque	9,480Nm
Coring Speed	957rpm
Water Pump	Standard
Footclamps	Standard
Head Sideshift	Hydraulic
Dump Mast	Standard
Safety Cage	Standard
Wireless Controller	Standard
Rubber Tracks	Standard

## CAPABILITIES

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Sonic Drilling	150m
NQ Diamond Coring	250m
HQ Diamond Coring	150m
Angle Drilling	45°

## AVAILABLE FROM

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Brisbane  
Newcastle  
Sydney  
Melbourne  
Adelaide

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