

The Terrier Tracked Dynamic Sampling Rig

Chadwick T&T's latest equipment acquisition is a Terrier Tracked Dynamic Sampling Rig.

The Terrier Rig has specifically been designed for environmental and geotechnical soil sampling and is extremely compact and easily manoeuvrable on sites that have limited access. After arriving on site it can be set up and ready to sample within 5 minutes.

Generally sampling is conducted by stepping down in sample barrel diameter, which gives a sample diameter in the range from 100 mm to 56 mm and produces a tapered borehole. This speeds up the operation by reducing skin friction on the sample barrel. Alternatively, if a borehole needs to be 116 mm diameter to depth it can be cased to a maximum of 10 m, but the depth is dependent on ground conditions.

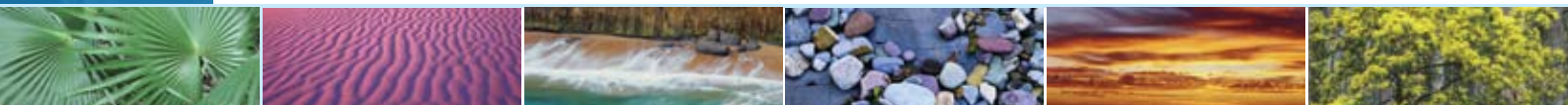
1.0 Sampling

Samples are taken in a clear PVC plastic liner within a sample barrel. The sample diameters range from 100 mm to 56 mm and are 1 m long. The sample barrel is driven by percussion and is ideally suited when sampling is at depths between 5 to 8 m. This method of sampling results in excellent sample, and recovery.

A team of two drillers operate the Terrier Rig; an additional person is required to log samples on site for efficiency. Alternatively samples can be capped and transported off site for further testing.



This method of sampling results in very little disturbance to the surrounding environment compared to other drilling methods. Samples are generally not smeared which makes it a lot easier for logging and obtains sub-samples for environmental and geotechnical testing. Where required, the use of simultaneous casing also minimises the risk of cross contamination between successive samples. Sample catchers can be placed inside the base of the liner which reduces the loss of sample in loose or soft conditions. ▶



Dynamic sampling is only possible in soils and very weak rock. It is not possible to penetrate very dense material such as gravels with N values exceeding 35.

The rig also has a concrete coring attachment (maximum diameter 150 mm) which allows sampling through concrete and or asphalt surfaces.

2.0 Insitu Testing - SPT & Dynamic Probing

SPT (Standard Penetration Test)

SPT testing to Australian Standards can be carried out at intervals during the sampling process.

Dynamic Probing (Fixed Cone) Heavy (50 kg, 500 mm drop) and Super Heavy (63.5 kg, 750 mm drop (same as SPT)) dynamic probing is available. Test depths of up to 30 m can be achieved in suitable ground conditions. Excellent for locating voids, loosely compacted material or obstructions and it is a relatively quick test.

3.0 Instrumentation

Stand pipe, pneumatic and vibrating wire piezometer of up to 50 mm diameter can be installed for water and gas, sampling and monitoring.

4.0 Dimensions

Working height	2.85 m
Terrier Rig width	0.8 m
Overall height mast down	1.5 m
Overall length	2.7 m
Total weight	1300 kg plus a 7000 kg reaction load
Terrier Rig ground bearing pressure	33 kPa

For Sampling Quotes:

Contact Robert Barden - 0417-053-911

For Sales of Terrier Rigs and Equipment:

Contact Michael Di Meglio - 0400-025-637



www.chadwicktt.com.au

