



Rotary Open Drilling Frequently Asked Questions:

What depths will Rotary Open Drilling Achieve?

This drilling is ideal for developing deep boreholes to depths in the approximate range 5 – 120m below ground level.

Why choose Rotary Open Drilling Techniques?

Generally used in rock to allow relatively undisturbed sampling. The technique may also be adopted in stiff cohesive soils although this is not typical. In rock a continual core of rock is obtained for inspection and testing. The depth of the drilling run is known and so if a void or open joints are encountered the relationship between the drilled and recovered lengths may be compared to give a better picture of ground conditions.

The resultant boreholes allow the installation of biogas and/or groundwater monitoring standpipes, piezometric pipes, settlement gauges or inclinometer tubes.

How does a Rotary Open Drill Rig Operate?

This is normally carried out using conventional or wireline double or triple tube core barrels fitted with diamond or tungsten tipped core bits that are rotated from surface and 'cut' through the rock or stiff clay. The sample is retained in a stationary core barrel to reduce sample disturbance. The cutting shoe is flushed using a continual flow of air, foam or water to remove the cuttings to surface. The objective of the core drilling is to achieve optimum core recovery and core quality.

Will there be a mess left?

This drilling technique uses a combination of compressed air, water and/or foam as a drill lubricant and for the recovery of the ground down rock/soil through which the cutting head passes. Therefore disturbed material, usually silt sized and finer, is constantly being flushed to the surface. This can result in substantial surface arisings within the immediate vicinity of the hole aperture. We will always try to minimise the mess and can arrange for clearing away surface arisings if required.

Will there be an open hole left in the ground?

Upon completion holes are either reinstated back to the original condition (tarmac/concrete/turf) or a 6' square stopcock cover will be concreted into position to allow access to any monitoring pipes that may have been installed. In areas of soft landscaping small surface depressions at the borehole location can occur over time.



Are there access restrictions?

A Rotary Open Drill Rig is a large tracked machine which is accompanied by a towed generator/compressor unit. A substantial amount of equipment is required for this drilling method, therefore vehicular access and a relatively large working area is required (approximately 5m x 7m).

General dimensions (including working area):

Height: 4.00m

Working area: 5.00m x 7.00m

Level drilling area (no more than 5°)

Pros

- Deep depth achievable
- Penetration through rock
- Allows installation of monitoring pipes

Cons

- Access restrictions
- Expensive
- Messy