



## THE GEOTECHNICAL “PIONEER” ROTARY RIG

The multi-purpose Pioneer drilling rig was developed to be a versatile, compact yet powerful machine to carry out a wide variety of ground investigations in many different situations.

We currently operate 16 Pioneer rigs, in 3 different versions with integral mono pumps. The rigs are transported to site on flat-bed trucks, accompanied by support vans carrying ancillary equipment and materials.



Pioneer rig dimensions & weights:

- Access width/height/length: 1.5m/2.2m/4.6m
- Operating: 1.5m/4.6m/4m
- Working area: 7m by 2.5m minimum

- Weight: 2.75 or 3.5 tonnes

In the right ground conditions, the original Pioneer is capable of:

- Dynamic sampling of soils to 20m deep to obtain near-undisturbed continuous samples up to 112mm diameter retained in a plastic liner, forming boreholes of up to 143mm diameter.
- Rotary core drilling to 50m deep to obtain continuous rock cores of up to 112mm diameter, using a range of drilling flushes.
- Working in restricted areas, and forming boreholes (and sampling) at any angle.

The Pioneer 2 is capable of:

- Dynamic sampling (see above)
- Rotary core drilling to 80m deep.
- Hollow stem flight auger boring to 20m, forming boreholes of up to 250mm diameter and allowing installation of up to 125mm diameter standpipes.

The Pioneer High Torque (Technodrill) is capable of:

- Dynamic sampling (see above)
- Hollow stem flight auger boring to 20m, forming boreholes of up to 300mm diameter
- Allowing installation of up to 150mm diameter standpipes

The Pioneer rigs are capable of:

- Standard penetration testing (SPTs) to BS EN ISO 22476-3.

All versions are capable of:

- Concrete coring
- Undisturbed soil sampling of 100mm and 70mm diameter
- Forming boreholes for a variety of ground remediation techniques
- Installing standpipes, monitoring wells, biaxial inclinometer tubing, and installation of various other instruments.

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