CONTINUOUS HELICAL AUGER DISPLACEMENT (CHAD) PILES

CHAD piles are suited to most ground conditions and can be used for a wide variety of applications. The CHAD pile is able to penetrate denser strata than regular CHD piles, whilst offering a reduced volume of spoil in comparison to a traditional CFA solution.





DESCRIPTION

RB's Continuous Helical Auger Displacement (CHAD) pile is a modified version of the CHD process. The CHAD pile is formed using a multifunctional boring head. This comprises an outer casing which houses an internal 350mm diameter CFA auger. The external casing retains the regular CHD profile, with a 450mm diameter core and 750mm diameter outer flight.

This patented system is suitable for medium to high loads and can be used in a wide variety of soils including cohesive soils such as clay and non-cohesive soils such as sand, gravels, glacial tills, and contaminated ground. CHAD is virtually vibration-free, making it ideal for working near existing buildings or in environmentally sensitive areas.

CHAD offers the same displacement benefits as a regular CHD pile with the added benefit of negating the need to utilise a separate pre-boring rig to overcome issues with dense strata which reduces costs, reducing the effects of surface heave in consolidated clays, and reducing the amount of spoil generated in comparison to conventional CFA piles.



APPLICATIONS



Commercial



Residential



Industrial



Cohesive and non-cohesive soils

ADVANTAGES



Saves time



Improves soil strength



Saves costs



Shorter piles than equivalent CFA



Reduces spoil



Ideal for sensitive areas

INSTALLAION

CHAD piles are formed by drilling an outer 450mm drive casing with a 450/750mm bullet end and internal 350mm diameter hollow stem CFA auger to the required design depth. The internal CFA auger is used to prebore the pile immediateley ahead of the 450/750mm bullet, to limit the degree of consolidation of the ground, which could otherwise prevent penetration or create heave.

The two components rotate independently and in opposite directions to assist in transportation of spoil within the drive casing. Any excess spoil created within the drive casing overspills through slots in the top of the casing, which is guided by a spoil apron to ground level. The external casing with bullet end retains the regular 450/750mm CHD profile.

TECHNIQUE CAPABILITIES

SPECIFICATION	FROM	ТО
Standard pile size	450mm/750mm	
Typical load capacity	500kN	1500kN+
Practical depth	2m	16.5m

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