

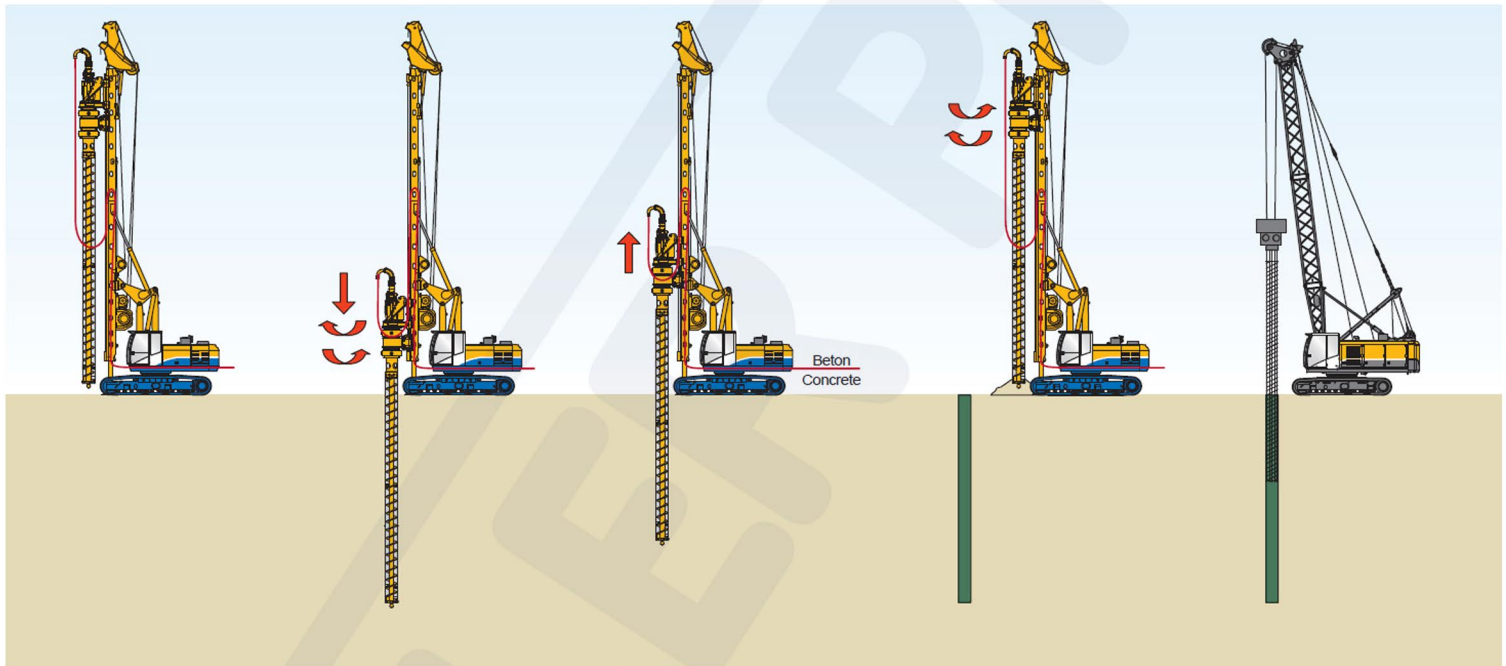
Cased CFA

It comprises two independent rotary heads, one to drive the auger and the other - rotating in the opposite direction to reduce the torque transferred to the mast - turning the casing. Holes can be formed with the auger ahead or behind the casing depending on ground conditions. The casing shoe is fitted with cutting teeth that, added to the extra torque from the second head, can speed up production. If the pile has to go deeper than the full casing depth, the casing head can be stopped and the auger progressed to the full depth, using the extension kelly if needed.

And the casing provides stiffness and good control of drilling direction, preventing drift caused by flexing of the auger. Spoil is removed from the auger using a cleaner on the top of the casing head and can be cleared from the pile position before the casing is pulled.

Concrete is placed, as for conventional CFA work, through the hollow stem of the auger, with the auger withdrawn slightly ahead of the casing to ensure a head of concrete that will fill the annulus left when the casing is pulled.

Where piles are required with cut-off below ground level, the casing can be disconnected using a quick-release mechanism and left in the ground long enough to ensure that when it is removed the concrete will not slump below the specified level.



The cased CFA system consists of an upper standard rotary drive connected to the auger and a lower drive (BTM) connected to the casing and powered by the rotary drive.

Rotate and push the tools simultaneously into the soil. The soil is transported upwards along the flights and exits underneath the BTM into the soil chute.

Concrete is pumped through the hollow stem after reaching the final depth, while the auger and the casing are withdrawn.

Remove the rig from the borehole. Empty the soil-filled auger by changing the rotation direction of auger and casing.

Push or vibrate the reinforcement cage into the freshly poured pile