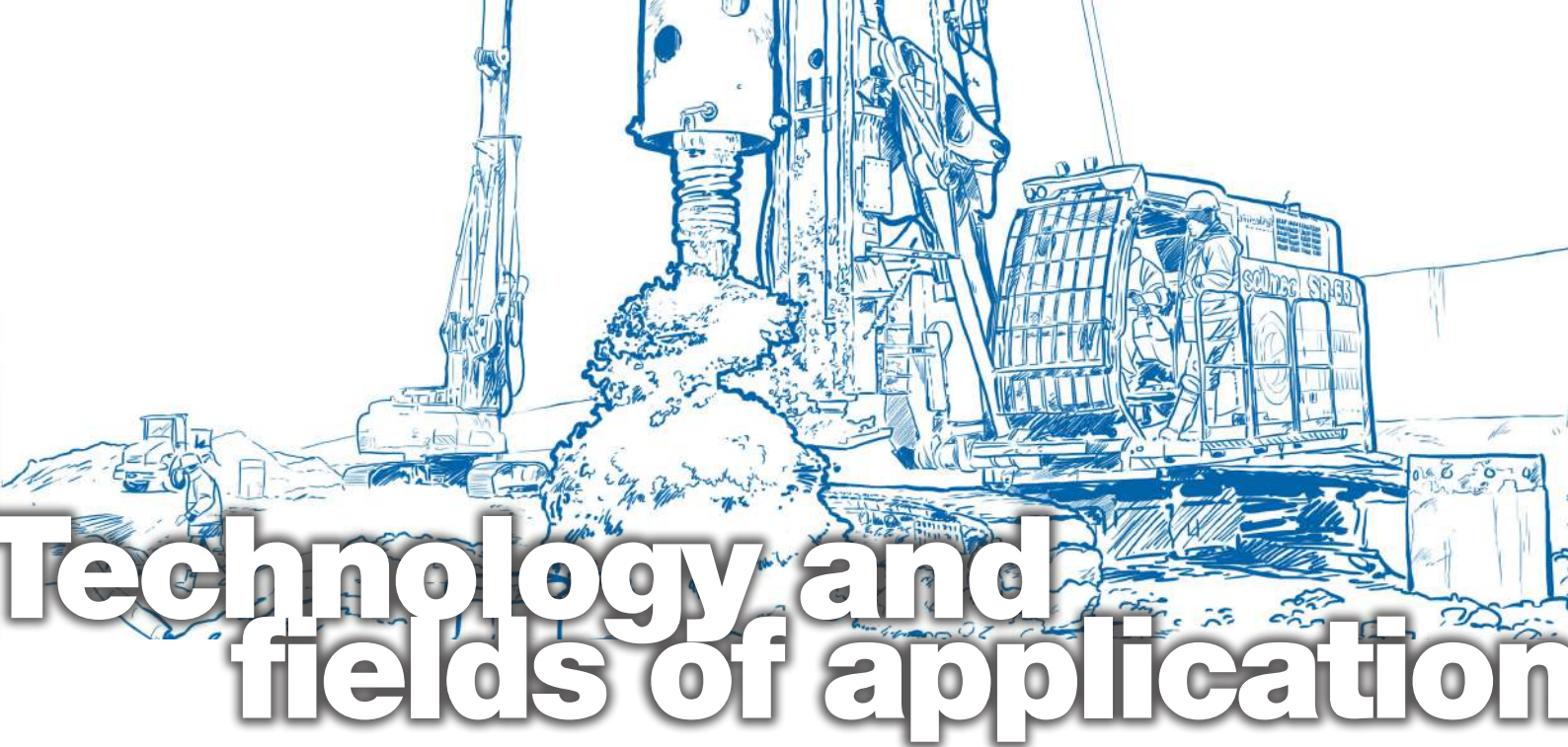


continuous CFA flight auger

Continuous flight auger piles is a type of drilled foundation in which the pile is drilled to its final depth in one continuous process using a continuous flight auger.

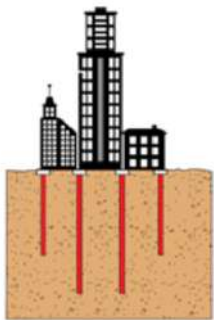
CFA piles are a replacement and cast in place piles type with a slight displacement of the soil, more noticeable using a large diameter hollow stem, that increases the final load bearing capacity.

- **High production rate**
- **Absence of vibrations and shocks**
- **Minimum job site installation**

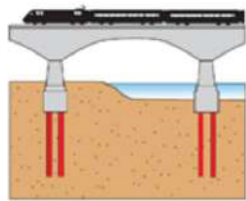


Technology and fields of application

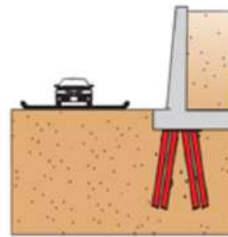
Single piles



Group of piles



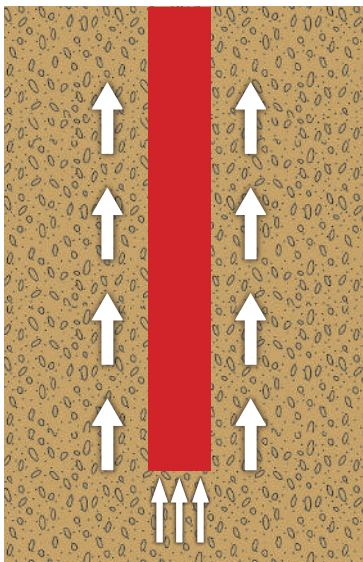
Inclined piles



Vertical Load

Bending moment

Shear stress



Lateral bearing capacity

End bearing capacity

CFA augers are used in various industries, including:

Construction:

For deep foundation piling in buildings, bridges, and tunnels.

Infrastructure:

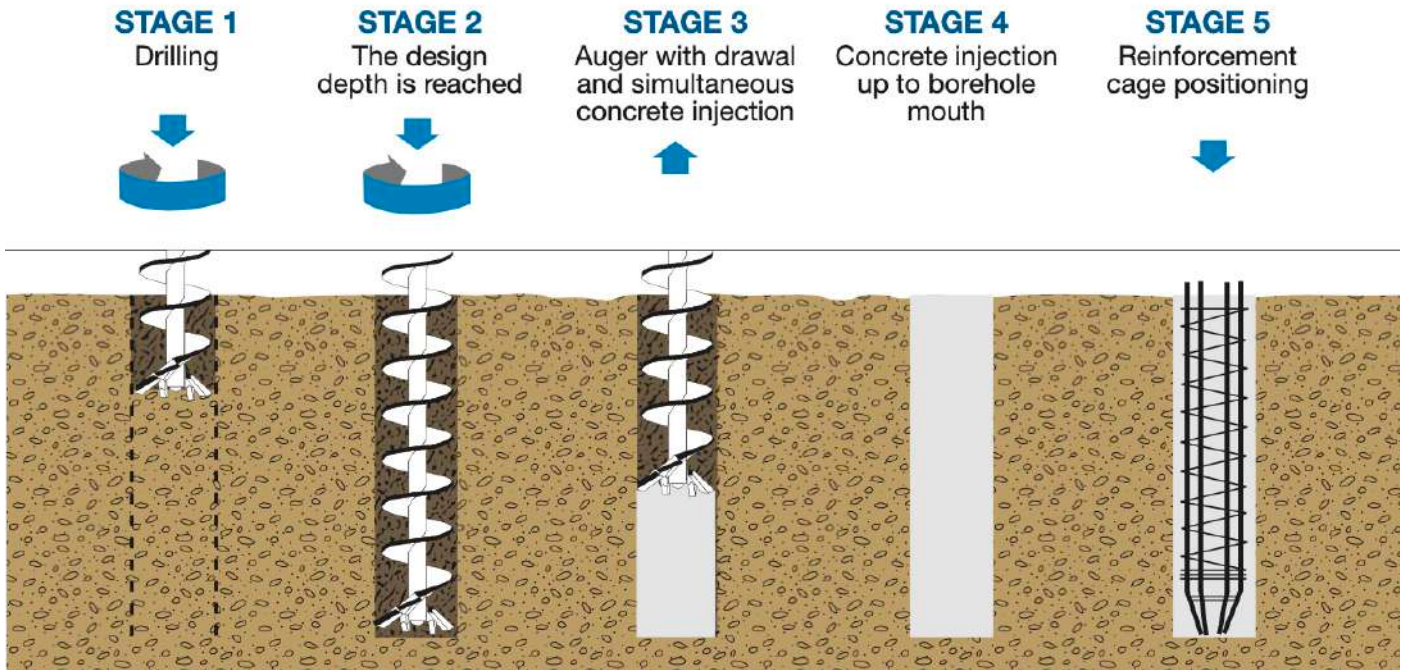
Roadway and railway foundation support.

Industrial Applications:

Material handling and bulk transportation systems.

Agriculture:

Drilling for irrigation and soil stabilization projects.

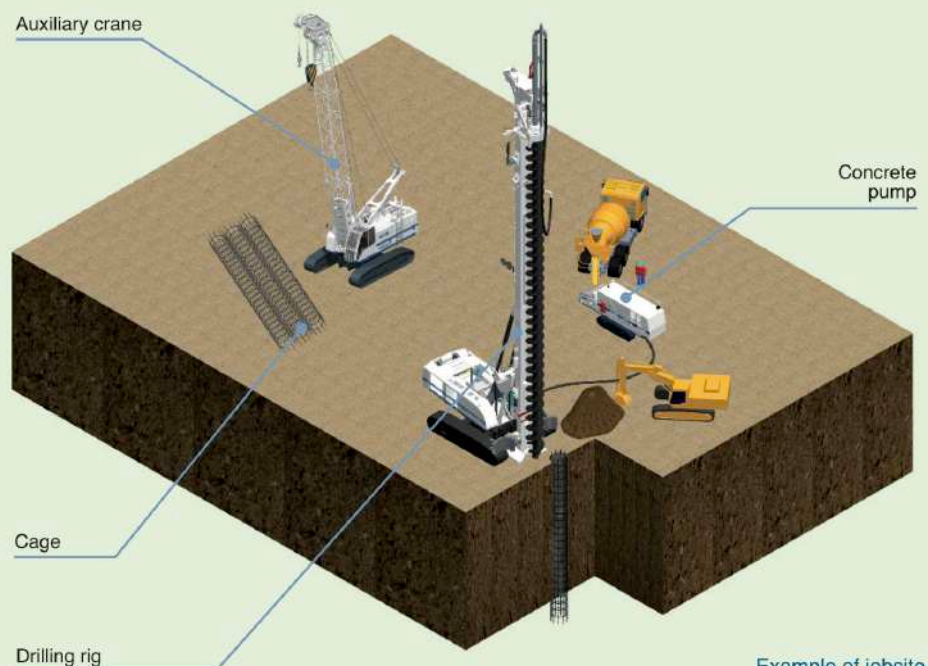


CFA operational sequence

The construction procedure consists of boring the soil by means of a continuous flight auger assembled on a central hollow pipe. On completion of boring operation, auger is extracted while concrete is poured throughout the internal hollow pipe. The steel reinforcement cage is finally lowered into the fresh concrete.

job site lay-out

For the construction of CFA piles, the jobsite has to include a drilling rig, a small-sized tracked hydraulic pump, a backhoe excavator for debris handling and an auxiliary crane for cage positioning, whether needed.



Example of jobsite arrangement

performance

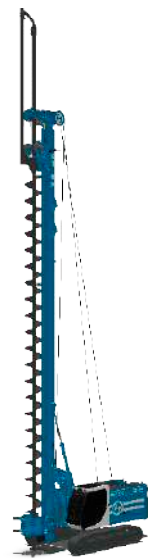
Drilling rig performance



SR-30 Eagle



SR-35



SR-45



SR-65



900 mm

900 mm

1000 mm

2000/3000 mm



22 m

12,9 / 25 m

23,2 / 26 m

283 kW



300 kN

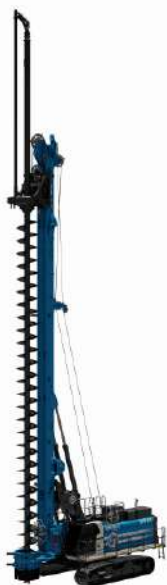
380 kN

530 kN

258.5 kNm



SR-75



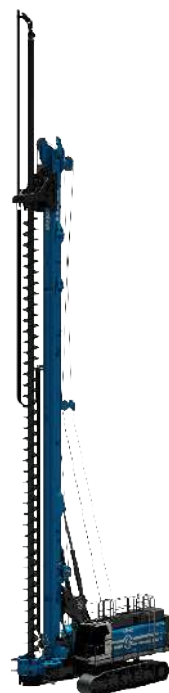
SR-95



SR-105



SR-125



SR-145



1200 mm

1200 mm

1200 mm

1200 mm

1200 mm



26,2 / 31 m

29,5 / 34,5 m

29,5 / 36,5 m

32,5 / 38,5 m

32,5 / 38,5 m



984 kN

1110 kN

1110 kN

1300 kN

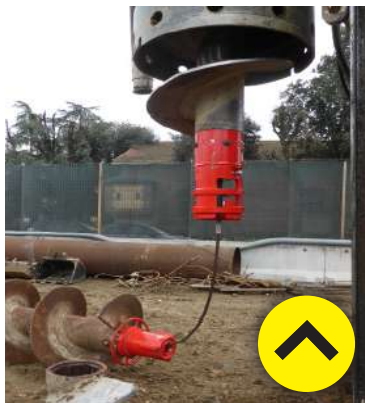
1296 kN



2012

SM106 - Openable auger cleaner.

This openable roller auger cleaner has the special function to open itself in two parts. This allows to reach the same depth achievable without the auger cleaner.



2015

SM116 - Device for the handling and mutual assembly of auger segments

The device allows to handle and add auger segments by assembling them from the ground eliminating the need for an aerial platform and increasing safety.

patent controls

DMS suite for CFA

- Improved drilling efficiency with controlled accuracy
- Drilling assistance systems for operator support
- Job planning and progress tracking in real time
- Reporting, data analytics and quality assessment
- Condition monitoring and maintenance management software
- Worldwide remote assistance





Belfast Harbour, Ireland
Historic Belfast Ship Yard



Canada Water, London
King's College London



Napier Gateway, Luton, UK
Luton Parkway Airport



Birmingham City Centre Hub, UK
Curzon Street station



Milano, Italy
Santa Giulia Arena



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