

POWER & SPEED high performance in compact size



LIMITED ACCESS
go everywhere,
nothing is off limits

VERSATILITY change in plans? one machine many applications



COMPACT PILING RIGS

GENERAL CATALOGUE

#### **ABOUT US**

Since 2006, Geax s.r.l has operated in the fields of design and construction of drilling machinery and equipment for piles. It was founded by Adriano Pesaresi, who has worked as a design engineer since the 1980s for other notable drilling design companies.

The new business project was established with the aim of producing drilling machines that were structurally innovative, compact, reliable, simple to use, and extremely productive and efficient.

These machines represent a big step forward in a market that for years has been static and conservative.

In 2003 he began operating in the field of drilling in order to focus on the needs of the operators and to test his new designs and solutions.

Coupling many years of design

experience along with on-site testing gave way to the current models in production at Geax.

While on the jobs, Geax machines show top-level performance and flexibility; adapting rapidly to the increasingly stringent requirements of the operators.

Geax has a streamlined and efficient organizational structure that allows us to offer machines at competitive costs and to quickly adapt to market needs by developing new applications and special machines on customer request.

GEAX is revolutionizing the foundation drilling machine market by offering innovative products with reliable support and quality.

All GEAX production is characterized by the constant search for improvement of the drilling operations, site safety, and reduction of operating costs.

#### **WHY GEAX**

To work where others dare not go: narrow spaces, slopes, interiors of buildings, proximity to power lines.

To optimize every aspect of production by adapting the equipment to meet all jobsite needs.

For the compactness of the machine: saving on transport, fuel, maintenance.

To avoid wasting time and resources with an oversized machine.

For ease of use and speed of set up.

#### **INNOVATION**

Geax drilling machines are distinguished by their compact size ideal for working in tight spaces and easily transported without special permits. But they are not the simple copy on a reduced scale of the largest traditional machines; they are carefully designed to brilliantly solve all the limitations that the reduction of size and the weight involves.

The machines' particular articulation structure is similar to a normal excavator

with a long boom supporting the mast. This allows a wide range of mast positioning and independent adjustment of the vertical position of the mast. Wire rope positions are not dependent on the position of the mast as the winches are mounted on the mast itself.

This design, compared to other machines, usually with parallelogram type mast supports, ensures excellent rigidity and lightness, more precise movements, fast

setup time, wide range of tool
positioning, simpler maintenance, and
finally better visibility for the operator.
The excavator base carrier, constructed to
GEAX specifications, ensures excellent
reliability and maintenance, with superior
cabin quality in terms of ergonomics,
comfort, and quietness generally not
available on proprietary machines. Geax
also retains the warranty of the carrier
manufacturer worldwide.

The patents are evidence of a constant search for innovative solutions to allow our machines to achieve best results on the jobsites.

#### **NETWORK**

GEAX is represented worldwide by a wide network of exclusive dealers and authorized service centres. Find the one nearest to you!



# **DTC SERIES**

The DTC series was designed in 2006 in order to satisfy the growing market of compact piling rigs which stand out in maneuverability, ease of transport, and low maintenance and running costs.

> The DTC design choices ensure an overall lighter structure (at equivalent robustness) which permit the assembly on medium-small size excavators, leading to a significant reduction in costs. Furthermore, its compact size guarantees a superior agility in the jobsites, which results in high productivity comparable with much larger piling rigs.

**Rotary head Crowd cylinders** Fore/aft tilt cylinder Long boom Additional counterweight

Foldable/removable

aux jib

Side tilt

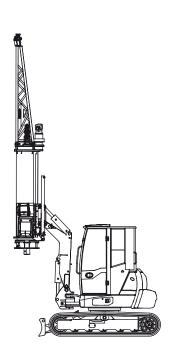
cylinders

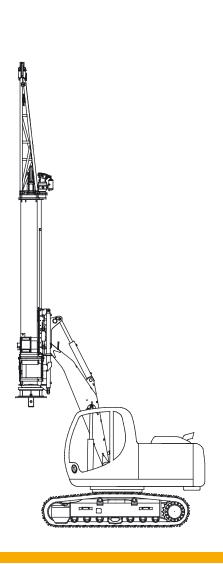
**Aux winch** 

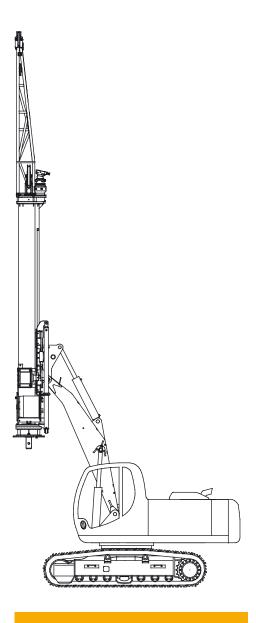
Main winch

**Kelly drive** 

Its innovative architecture consists of a steel boom which support a monolithic mast capable of independent vertical translation. The new concept of a boxed steel mast, which interally contains the telescopic Kelly bar, allowing for a higher rigidity, better stability (the Kelly bar is closer to the crawler base compared to an external Kelly configuration), and a reduction of noise during the tool discharge.







**Engine power** 

Width over tracks **Nominal torque** Main winch line pull Max pile diameter Max pile depth Min working height Weight (w/o tool)

JCB 38.4 kW - 51 hp Kubota 36 kW - 49 hp 1980 mm - 6.49 ft 27 kNm - 19.900 lbf ft 35 kN - 7.800 lbf 800 mm - 32 in 14.5 m - 47.5 ft 4.000 mm - 13.1 ft 9.000 kg - 19.800 lb

**Engine power** 

Width over tracks **Nominal torque** Main winch line pull 80 kN - 18.000 lbf Max pile diameter Max pile depth Min working height Weight (w/o tool)

JCB 81 kW - 109 hp Hitachi 73.4 kW - 98 hp 2.490 mm - 8.17 ft 47 kNm - 31.000 lbf ft 1.200 mm - 48 in up to 25 m - 82 ft from 6.200 mm - 20.3 ft from 16.000 kg - 35.300 lb

**Engine power** 

Width over tracks **Nominal torque** Main winch line pull Max pile diameter Max pile depth Min working height Weight (w/o tool)

JCB 93 kW - 125 hp Hitachi 90.2 kW - 121 hp 2.490 mm - 8.17 ft 82 kNm - 60.500 lbf ft 120 kN - 26.980 lbf 1.500 mm - 60 in up to 31 m - 101.70 ft 8.130 mm - 26.6 ft 24.000 kg - 52.900 lb

Other unique features include the possibility of a wide range of mast positions, with longer reach compared to a traditional machine, along with better visibility of the working area. The winches, mounted directly on the mast, make the rope movements independent from the mast positioning, improving the easiness of operation and cables' durability.

#### **EK SERIES**

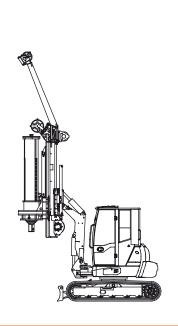
The EK series machines are multi-purpose rigs able to operate in various different drilling modes:

telescopic Kelly piling (P), CFA, diaphragm walls (D), soil mixing (SM), soil displacement (SD), hydraulic hammer (HH), vibro-hammer (VH), jet grouting (JG)

	Р	CFA	D	SM	SD	НН	VH	JG
EK30	<b>√</b>							
EK40	<b>√</b>	✓				✓		
EK60	✓	✓	✓			✓		
EK90	✓	✓	✓	✓	✓	✓		✓
EK110	✓	✓	✓	✓	✓	✓	✓	

Designed to maintain the compactness and agility of the DTC series, they enhance the versatility which is needed when each project requires a specific drilling mode to achieve the best results.

For each drilling mode a special kit is designed to optimize the performance. However, the modularity of the components makes the conversion among the different kits extremely easy, fast, and low-cost. The EK series range starts at weights of 9.5 tons up to 35 tons machines, which are able to cover the vast majority of jobsites. When a compact, high-performance, and multi-purpose rig is needed as a core machine of the fleet, the EK series is the best solution.





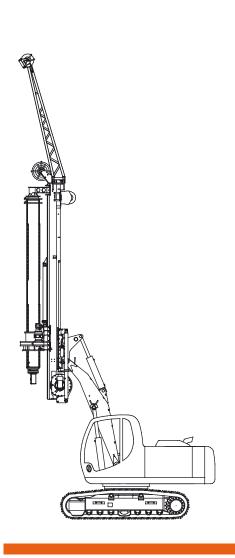
**Engine power** 

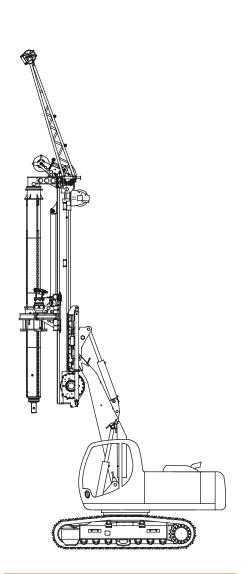
Width over tracks Nominal torque Main winch line pull Max pile diameter Max pile depth Min working height Weight (w/o tool) JCB 38.4 kW - 51 hp Kubota 36 kW - 49 hp 1980 mm - 6.49 ft 27 kNm - 19.900 lbf ft 35 kN - 7.800 lbf 800 mm - 32 in 16 m - 52.5 ft 3.700 mm - 12.14 ft 9.500 kg - 19.850 lb

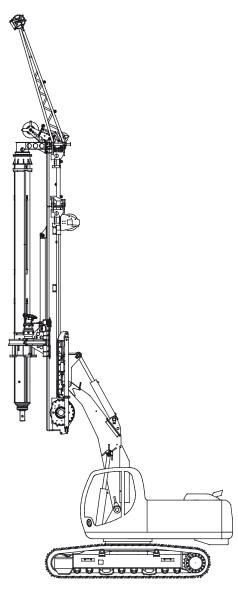
# EK40 P

**Engine power** 

Width over tracks Nominal torque Main winch line pull Max pile diameter Max pile depth Min working height Weight (w/o tool) Yanmar 46,5 kW - 63,2 hp 56.6 kW - 77 hp 2320/2920 mm - 7.6/9.6 ft 34 kNm - 25.000 lbf ft 48 kN - 10.800 lbf 1.000 mm - 40 in 20/28 m - 65.5/92 ft 5.480 mm - 18 ft from 12.500 kg - 27.600 lb







#### **EK60 P**

**Engine power** 

Width over tracks Nominal torque Main winch line pull Max pile diameter Max pile depth Min working height Weight (w/o tool) JCB 81 kW - 109 hp Hitachi 73.4 kW - 98 hp 2.490 mm - 8.17 ft 53 kNm - 38.400 lbfft 80 kN - 18.000 lbf 1.200 mm - 48 in up to 25 m - 82 ft 6.450 mm - 21.2 ft 19.000 kg - 42.400 lb

#### **EK90 P**

**Engine power** 

Width over tracks Nominal torque Main winch line pull Max pile diameter Max pile depth Min working height Weight (w/o tool) JCB 93 kW - 125 hp Hitachi 90.2 kW - 121 hp 2.490 mm - 8.17 ft 90 kNm - 66.380 lbf ft 120 kN - 26.980 lbf 1.500 mm - 60 in up to 31 m - 101.70 ft 8.250 mm - 27 ft 26.000 kg - 57.300 lb

#### EK110 P

Engine power

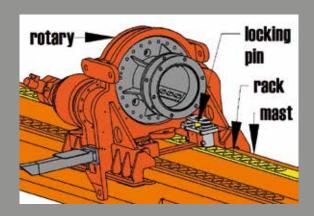
Width over tracks Nominal torque Main winch line pull Max pile diameter Max pile depth Min working height Weight (w/o tool) JCB 126 kW - 172 hp Hitachi 122 kW - 164 hp 2.490/3.490 mm - 8.2/11.4 ft 110 kNm - 81.130 lbf ft 120 kN - 26.980 lbf 1.800 mm - 70 in up to 40 m - 131 ft 8.250 mm - 27 ft from 30.000 kg - 66.090 lb

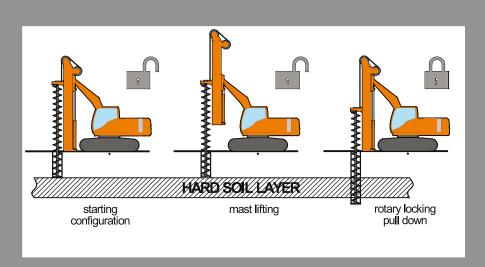
## BPS patented crowd system for CFA piling

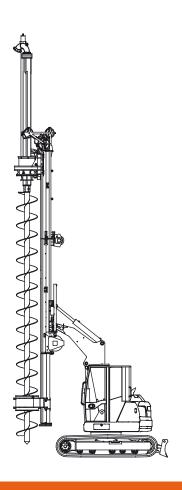
The pull-down system type BPS is GEAX's patented crowd system for CFA piling.

Providing a mechanical locking system between the rotary head and the mast, it creates a crowd force on the auger by the hydraulic cylinders that move the mast vertically and the crowd force is available along the entire length of the mast.

The pull-down system is activated only when needed by the operator and requires no pulleys or ropes.

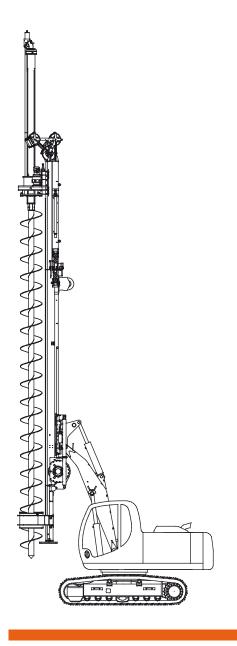


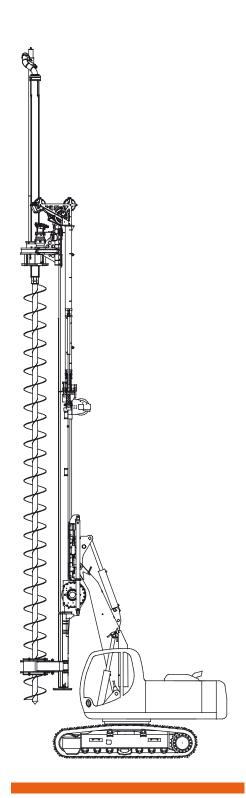


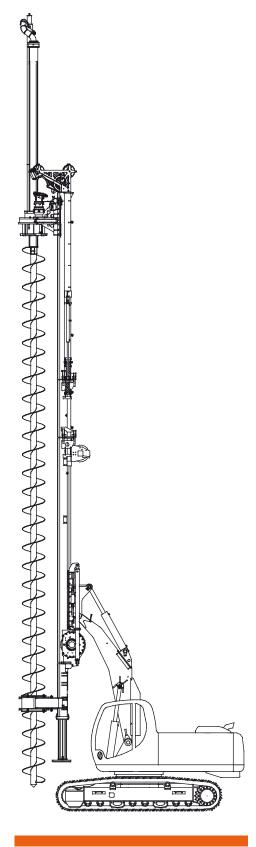


#### EK40 CFA

Pull down force Extraction force Total rotary stroke Max pile diameter Max pile depth Weight (w/o tool) 60 kN - 13.400 lbf 144 kN - 32.400 lbf 7.200 mm - 23.6 ft 500 mm - 20 in 10/11.5 m - 33/38 ft from 12.000 kg - 26.500 lb







#### EK60 CFA

Pull down force Extraction force Total rotary stroke Max pile diameter Max pile depth Weight (w/o tool) 80 kN - 18.000 lbf 160 kN - 35.973 lbf 11.100 mm - 36.4 ft 600 mm - 24 in 13.5 m - 44.3 ft 17.500 kg - 38.560 lb

## EK90 CFA

Pull down force Extraction force Total rotary stroke Max pile diameter Max pile depth Weight (w/o tool) 100 kN - 22.480 lbf 360 kN - 80.940 lbf 12.750 mm - 41.8 ft 750 mm - 30 in 16.5 m - 54.1 ft 25.000 kg - 55.100 lb

#### EK110 CFA

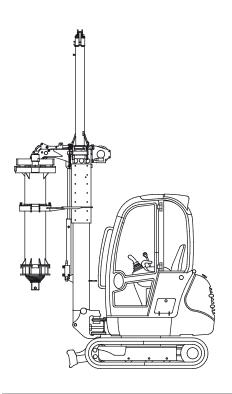
Pull down force Extraction force Total rotary stroke Max pile diameter Max pile depth Weight (w/o tool) 150 kN - 33.750 lbf 360 kN - 80.940 lbf min 12.750 mm - 41.8 ft 800 mm - 30 in up to 20 m - 65.6 ft from 29.000 kg - 63.930 lb

#### **XD SERIES**

#### XD series machines are the smallest hydraulic piling rigs in the world.

They are designed to work in extremely tight spaces, limited headroom, and jobsites difficult to access for any other standard piling rig. The minimum working height is 2.6 m (8.5') and the minimum width 1 m (3.28').

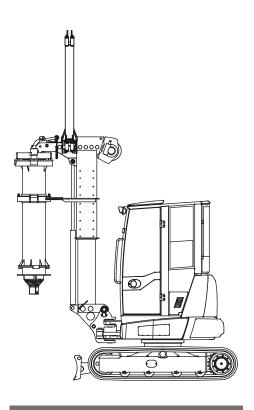
Despite the compact size, the XD series is equipped with all the features of larger rigs, such as auxiliary winch, depth meter, spin off speed and winch limit switches.



## XD 5

Engine power
Width over tracks
Nominal torque
Main winch line pull
Max pile diameter
Max pile depth
Min working height
Weight (w/o tool)

JCB 14.7 kW - 19.7 hp 1.002/1362 mm - 3.3/4.5 ft 6 kNm - 4.400 lbf ft 8 kN - 1.800 lbf 500 mm - 20 in 9.5/11 m - 31/36 ft 2.600 mm - 8.5 ft 2.400 kg - 5.300 lb



## XD8

Engine power
Width over tracks
Nominal torque
Main winch line pull
Max pile diameter
Max pile depth
Min working height
Weight (w/o tool)

Kubota 24.9 kW - 33.4 hp 1.550 mm - 5 ft 8 kNm - 5.900 lbf ft 15 kN - 3.370 lbf 600 mm - 24 in 12 m - 39.5 ft 2.800 mm - 9 ft 3.800 kg - 8.350 lb

The patented drilling attachments include a rotary system along with a telescopic Kelly bar, mounted on the mast with a gimbal joint, which guarantees always a perfect verticality. A hydraulic cylinder and the interlocking Kelly bar provide the crowd force necessary to overcome harder soils.

In addition, the XD series machines are designed to allow for a full conversion back to the original excavator functionalities in less than 30 minutes.

# A WORK





















