

EK110

HYDRAULIC PILING RIG

 **GEAX**





GEAX EK110 NO COMPROMISE

HIGH PRODUCTIVITY

Thanks to an efficiently engineered hydraulics with high quality components and a powerful last generation engine, the EK110 offers superior performance relative to the size, while keeping very low running costs.

UNIQUE ARCHITECTURE

Like all Geax machines, the EK110 has a long supporting boom and a sliding mast. This allows a great variety of tool positioning for drilling like: long reach drilling, low headroom and maximized tool height for casing.

MANEUVERABILITY

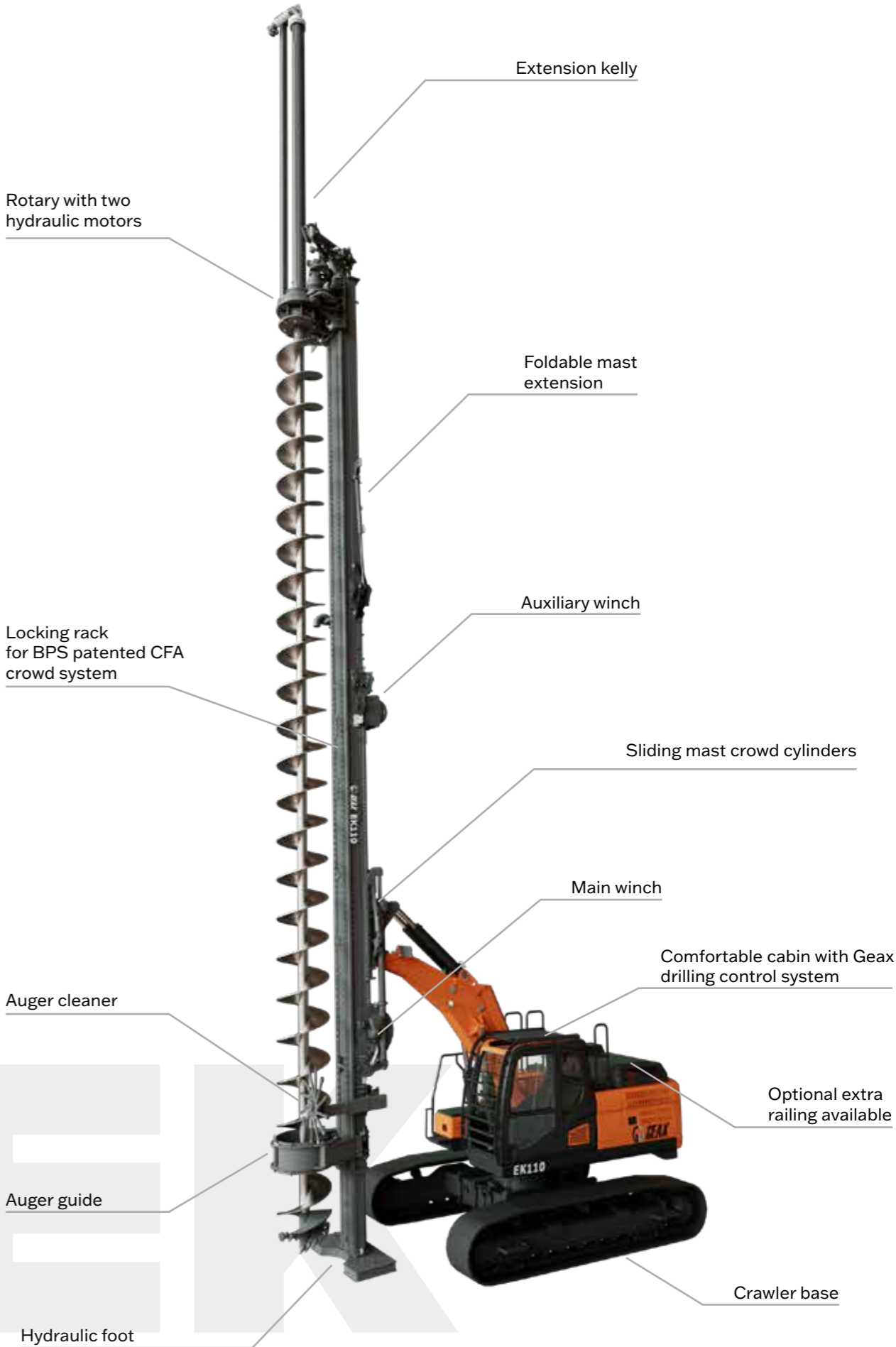
With its compact architecture and a proverbial stability, the EK110 can drill in any site including slopes, uneven terrains and tight spaces. The higher maneuverability allows fast movements compared to a traditional rig.

VERSATILITY

The EK110 can easily be converted in other drilling modes with modular kits. Common set-ups are kelly drilling and CFA, but many others are possible like diaphragm walls, soil mixing, soil displacement hydraulic hammer and customized set-up.

LARGE DIAMETER PILES

CONTINUOUS FLIGHT AUGER



LARGE DIAMETER PILES

Version S - 2.54m wide tracks

Version M - 2.99m wide tracks

Version L - expandable tracks



Max pile diameter ¹	mm - in	1800 - 70
Pull down force	kN - lbf	150 - 33.720
Extraction force	kN - lbf	165 - 37.100
Mast stroke	mm - ft	2.250 - 7.4
Rotary stroke on mast	mm - ft	2.000 - 6.6
Total rotary stroke	mm - ft	4.250 - 14
Min working height ²	mm - ft	6.900 - 22.6

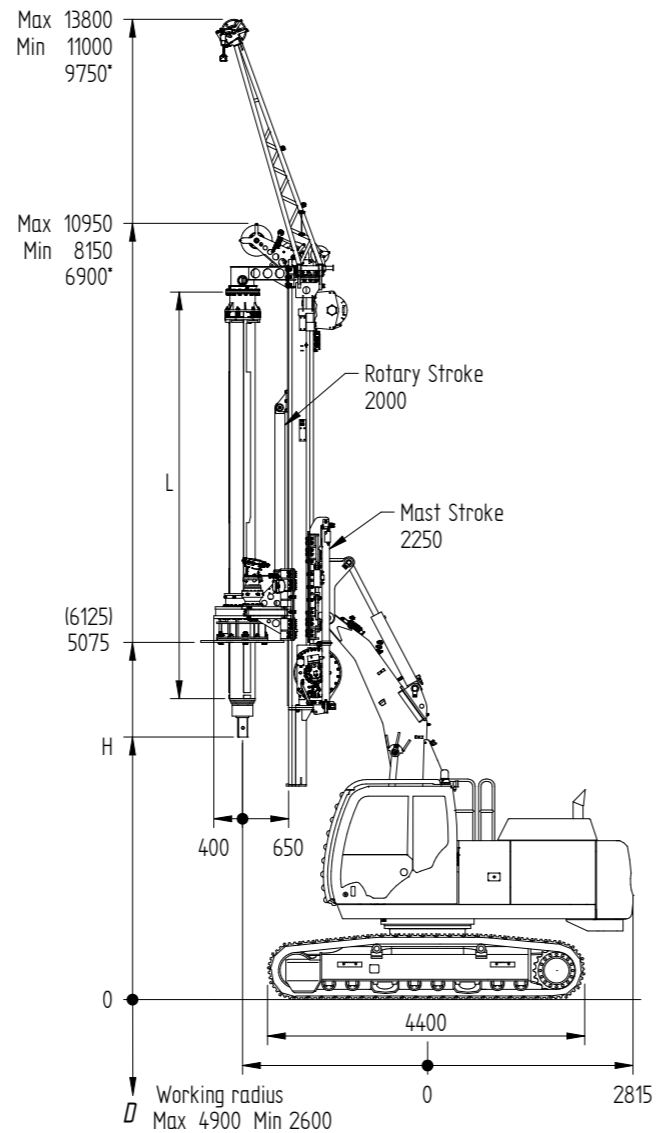
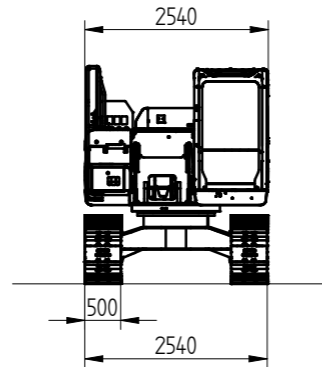
NOTES: 1. Recommended
2. Without mast extensions and with a short kelly bar



n° elements x m	Depth	H			
		S version	M version	L version	
5 x 5.6 (standard S/M)	m - ft	25 - 82	3.7 - 12.1	5.2 - 17	5.2 - 17
5 x 6.6 (standard L)	m - ft	30 - 100	-	4.2 - 13.8	4.2 - 13.8
6 x 5.6	m - ft	30 - 100	3.7 - 12.1	5.2 - 17	5.2 - 17
6 x 6.6	m - ft	36 - 118	-	4.2 - 13.8	4.2 - 13.8
6 x 7	m - ft	40 - 131	-	3.8 - 12.5	3.8 - 12.5
7 x 7	m - ft	46 - 150	-	-	3.8 - 12.5
6 x 4.8	m - ft	25 - 82	4.5 - 14.8	6 - 19.7	6 - 19.7

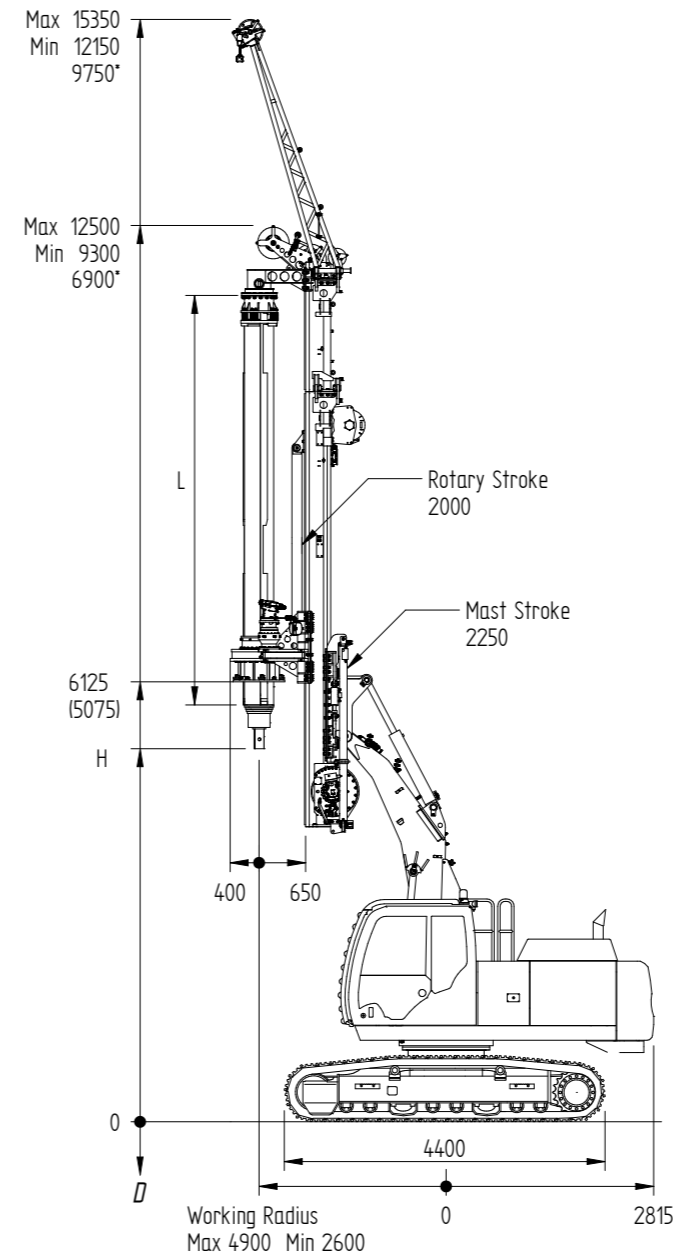
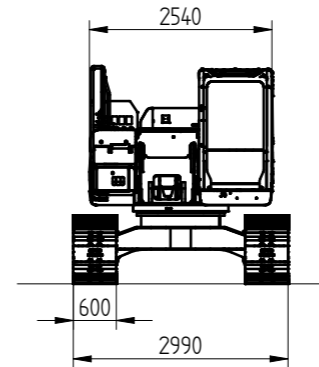
All kelly bars are round interlocking
Friction kelly and custom measures available upon request

S version



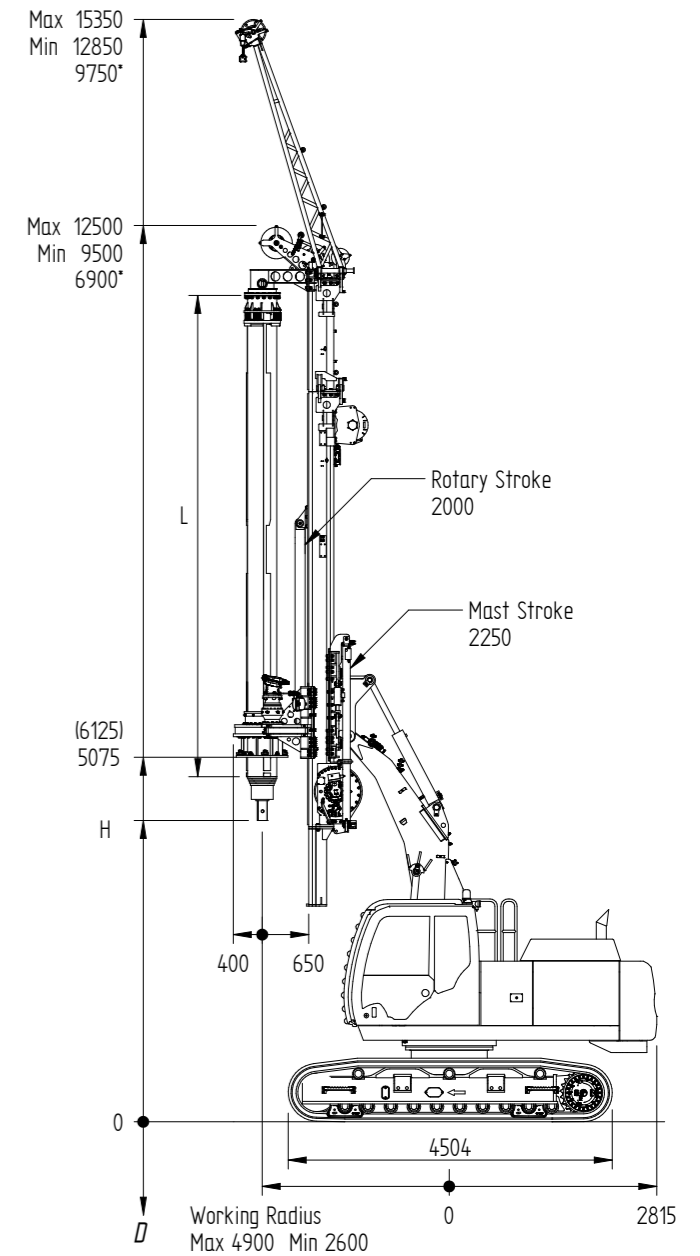
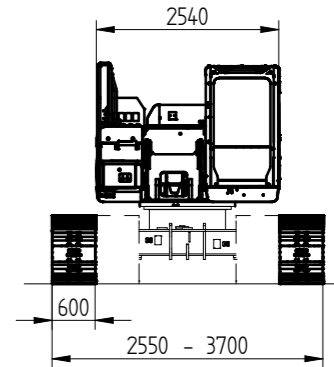
* removing the lower mast extension and with a short kelly bar
() moving the mounting position of the rotary on the mast

M version



* removing the upper mast extension and with a short kelly bar
() moving the mounting position of the rotary on the mast

L version EXPANDABLE TRACKS



* removing the upper and lower mast extension and with a short kelly bar
() moving the mounting position of the rotary on the mast

CONTINUOUS FLIGHT AUGER

Version S - 2.54 m wide tracks

Version M - 2.99 m wide tracks

Version L - expandable tracks



CFA DRILLING

Max pile diameter ¹	mm - in	800 - 32
Pull down force	kN - lbf	170 - 38.200
Extraction force	kN - lbf	310 - 69.700
Mast stroke	mm - ft	2.250 - 7.4

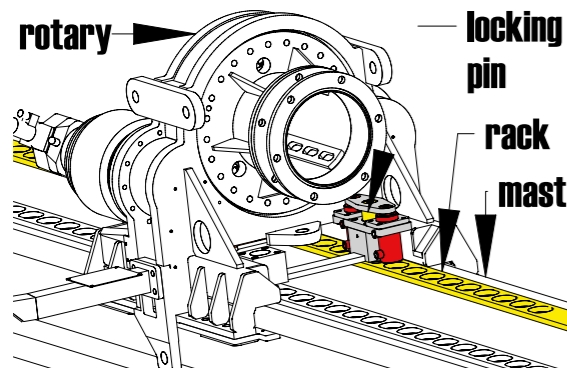
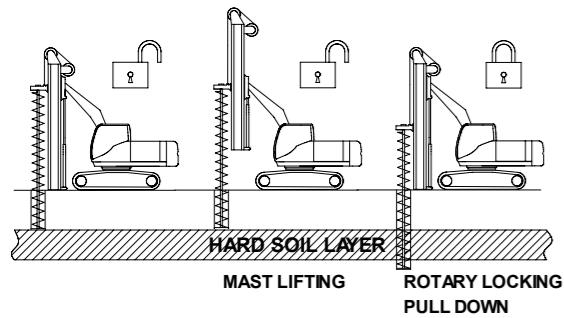
	S version	M version	L version
Max pile depth	m - ft 16.5 - 54	18.5 - 60	20.5 - 67
Rotary stroke on mast	mm - ft 11.000 - 36	13.000 - 42.65	14.000 - 45.9
Total rotary stroke	mm - ft 13.250 - 43.5	15.250 - 50	16.250 - 53.3
Max auger length	mm - ft 12.000 - 39.4	14.000 - 45.9	15.000 49.2

NOTES: 1. Recommended

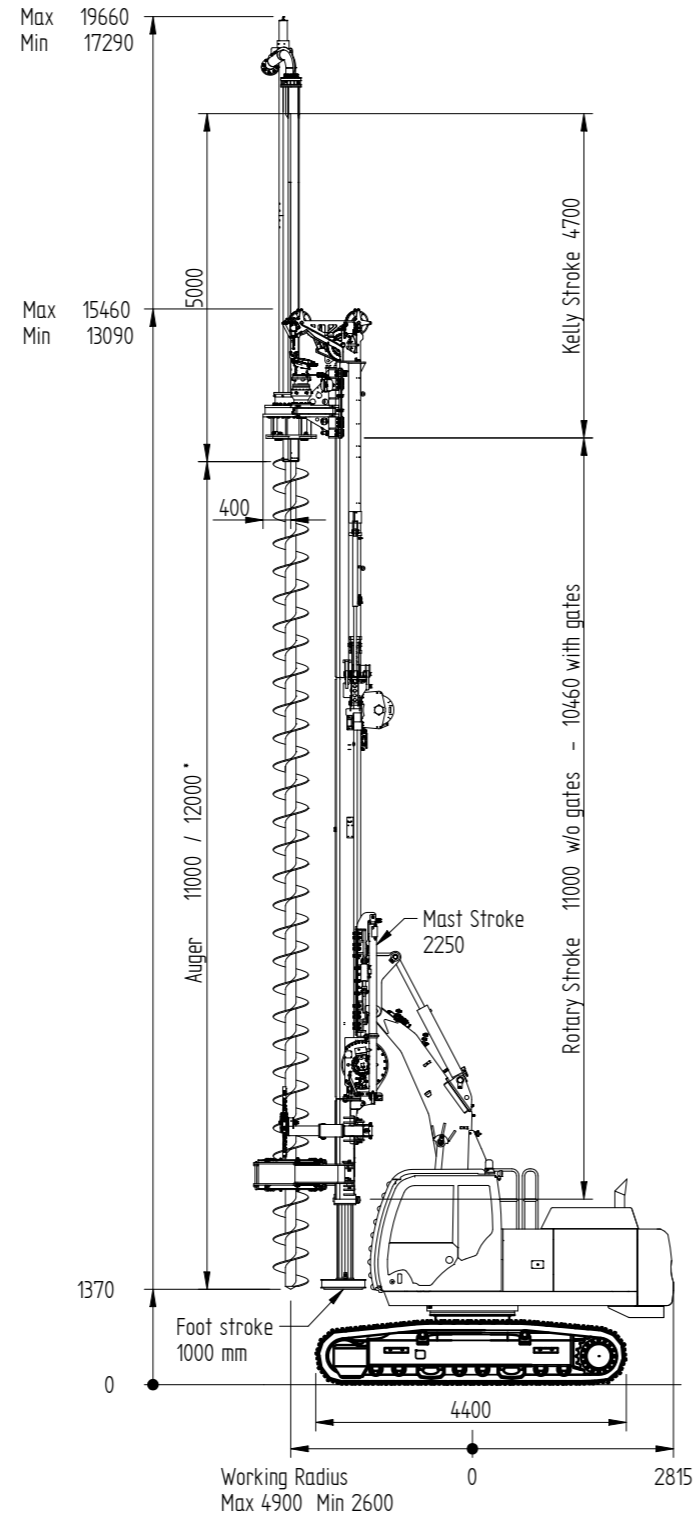
BPS Patented Crowd System

BPS is the Geax patented crowd system for CFA piling providing a mechanical locking system between the rotary head and the mast which creates a crowd force on the auger available along the entire length of the mast.

The system is activated only when needed by the operator and requires no pulleys or rope

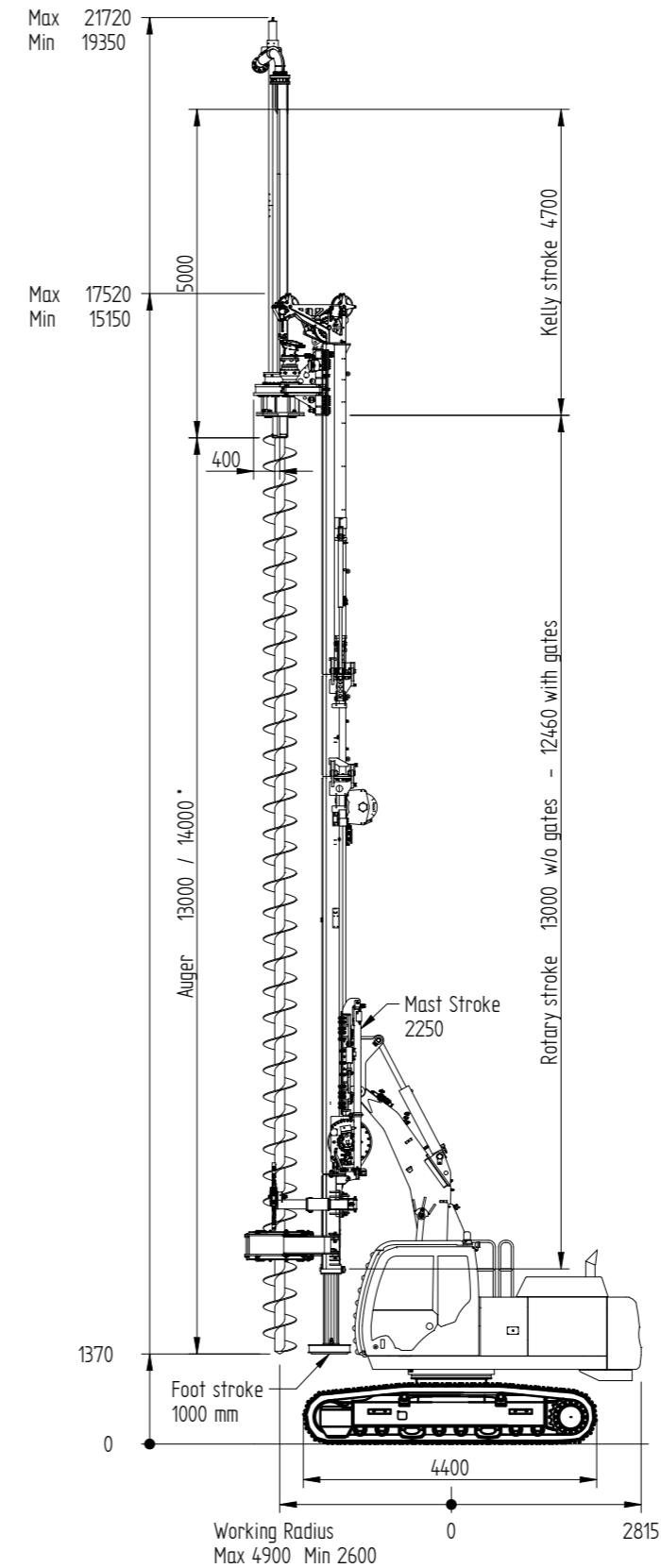


S version



* Max lenght with open foot

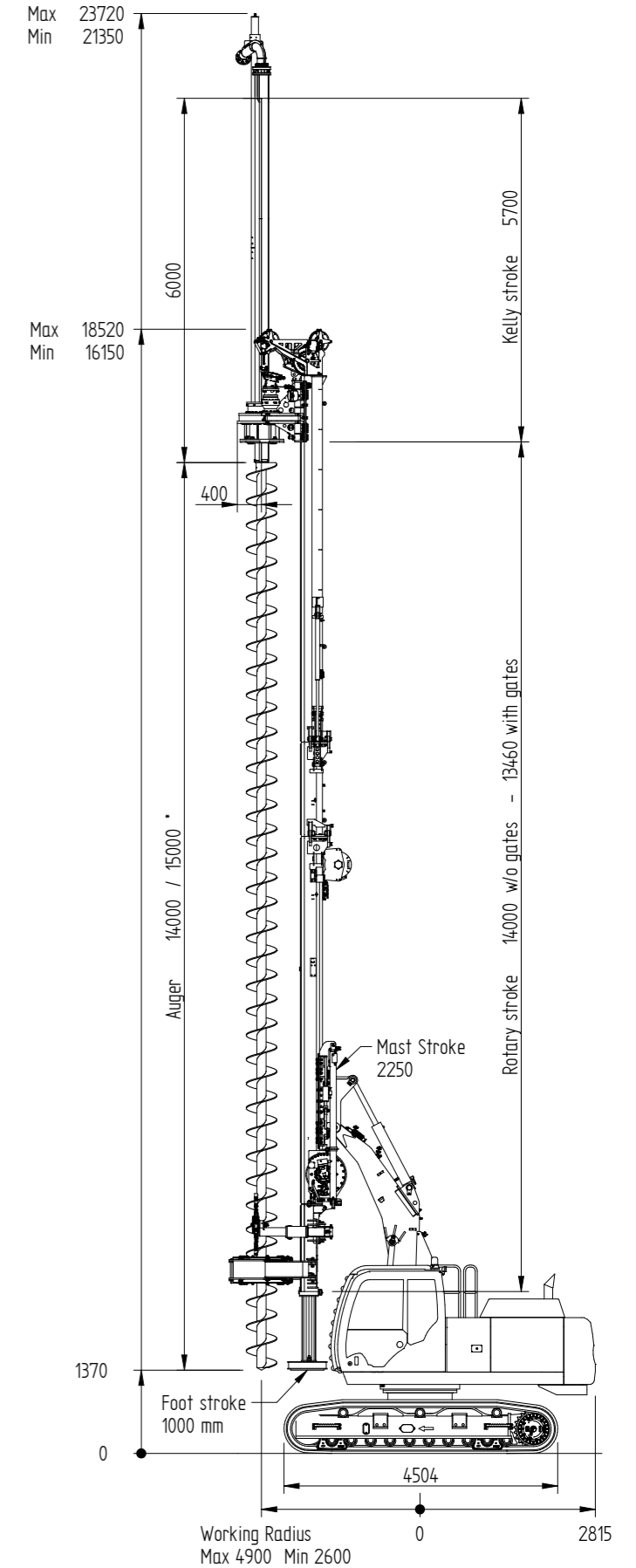
M version



* Max lenght with open foot

L version

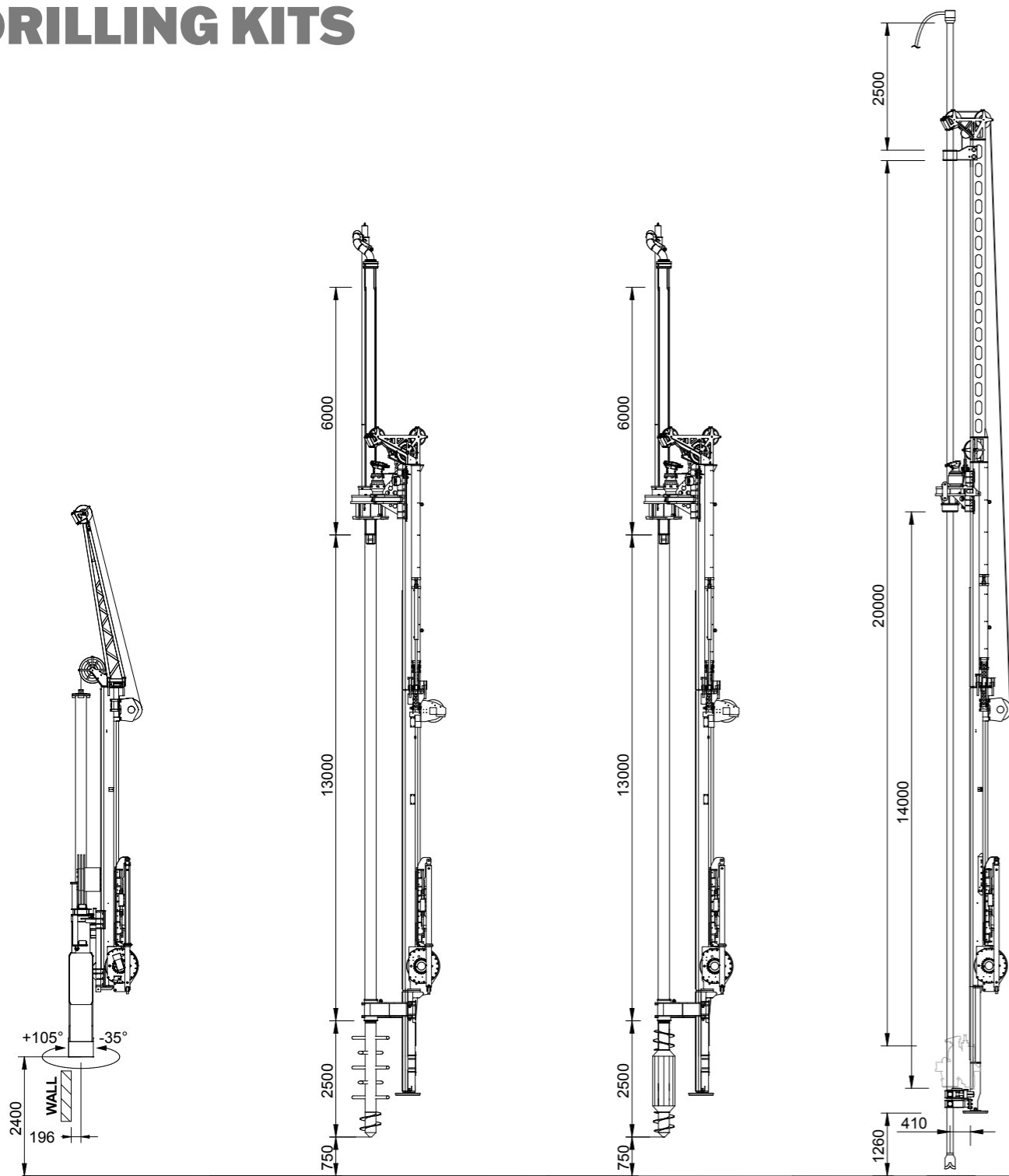
EXPANDABLE TRACKS



* Max lenght with open foot

DRILLING KITS

TECHNICAL DATA SHEET



DIAPHRAGM WALL

Max depth 16 m
Trench width 300-600 mm
Trench length 2500 mm
Closing force 200 kN

SOIL MIXING

Max depth 20.5 m
Max diameter 800 mm
Rotary speed 70 rpm

SOIL DISPLACEMENT

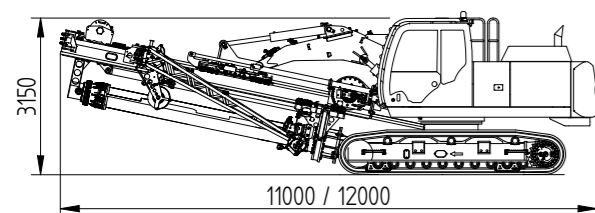
Max depth 20.5 m
Max diameter 600 mm
Pull down force 150 kN
Extraction force 360 kN

JET GROUTING

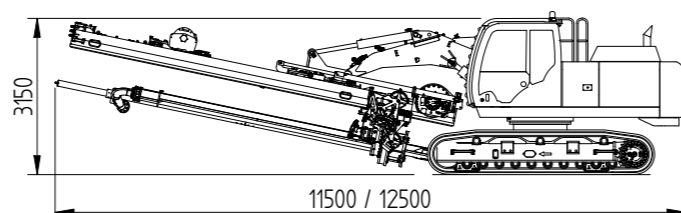
Max depth 22.5 m
Max torque 12 kNm
Rotary speed 60 : 180 rpm
Pull down force 150 kN
Extraction force 240 kN
Rev clamps 60 : 360 mm
Mandrel 60 : 140 mm

TRANSPORT

KELLY



CFA



BASE CARRIER

Engine	type	DL06P
Exhaust emission	EU	Stage V - III
	EPA	Tier4f - 3
Engine power	kW (hp)	124 (166) - 116 (155)
Main pumps	l/min	2x210
Hydraulic pressure	bar	330

MAST

Forward tilt	deg	>10
Backward tilt	deg	>10
Lateral tilt	deg	± 5.5
Mast vertical stroke	mm - ft	2.250 - 7.4

WINCHES

		KELLY	CFA
Main winch line pull (1st layer)	kN - lbf	120 - 27.000	120x3 - 27.000x3
Aux winch line pull (1st layer)	kN - lbf	52 - 11.690	52 - 11.690

DRILLING

		S version		M version		L version	
		KELLY	CFA	KELLY	CFA	KELLY	CFA
Max pile diameter ¹	mm - in	1.800 - 70	800 - 32	1.800 - 70	800 - 32	1.800 - 70	800 - 32
Std pile depth	m - ft	25 - 82	16.5 - 54	25 - 82	18.5 - 60	30 - 100	20.5 - 67
Max pile depth	m - ft	30 - 100	16.5 - 54	40 - 131	18.5 - 60	46 - 150	20.5 - 67
Rotary stroke on mast	mm - ft	2.000 - 6.6	11.000 - 36	2.000 - 6.6	13.000 - 42.65	2.000 - 6.6	14.000 - 45.9
Total rotary stroke	mm - ft	4.250 - 14	13.250 - 43.5	4.250 - 14	15.250 - 50	4.250 - 14	16.250 - 53.3
Min working headroom ²	mm - ft	6.900 - 22.6	8.650 - 28.3	6.900 - 22.6	8.650 - 28.3	6.900 - 22.6	8.650 - 28.3

TRANSPORT

		S version		M version		L version	
		KELLY	CFA	KELLY	CFA	KELLY	CFA
Length	mm - ft	11.500 - 37.7	11.500 - 37.7	11.000 - 36	12.500 - 41	12.000 - 39.4	12.500 - 41
Width	mm - ft	2.540 - 8.3	2.540 - 8.3	2.990 - 9.8	2.990 - 9.8	2.550 - 8.3	2.550 - 8.3
Height	mm - ft	3.150 - 10.3	3.150 - 10.3	3.150 - 10.3	3.150 - 10.3	3.150 - 10.3	3.150 - 10.3
Weight	kg - lbs	29.800 - 65.700	30.300 - 66.800	31.000 - 68.350	31.500 - 69.450	33.000 - 72.750	33.000 - 72.750

- Values are effective except where otherwise specified.
- Technical data are provided as indicative information only, they are subject to change without prior notice

NOTES: 1. Recommended
2. Removing the mast extensions

UNDERCARRIAGE

		S version	M version	L version
Tracks width	mm - ft	2.540 - 8.3	2.990 - 9.8	2.550/3.700 - 8.3/12.1
Tracks length	mm - ft	4.400 - 14.4	4.400 - 14.4	4.504 - 14.7
Track shoes	mm - ft	500 - 1.64	600 - 2	600 - 2
Tail radius	mm - ft	2.815 - 9.23	2.815 - 9.23	2.815-9.23

ROTARY HEAD

Torque (nominal)	kNm - lbf ft	107 - 78.920
Drilling speed	rpm	10 - 35
Spin-off speed	rpm	70

CROWD SYSTEM

		KELLY	CFA
Pull down force	kN - lbf	150 - 33.720	170 - 38.200
Extraction force	kN - lbf	165 - 37.100	310 - 69.700



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