

BAUER BG 33 H

Drilling rig
Base carrier BT 75

 Energy-Efficient
Power **EEP**



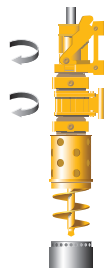
The Bauer drilling rig stand for multifunction equipment for a variety of foundation construction systems. The selection between two model ranges allows an optimum choice for differing project or transportation requirements.

Specific highlights of the Bauer drilling rigs are:

- High safety standards
- Environmental sustainability, economic efficiency and performance
- Easy transport and short rigging time
- High quality standard
- Long lifetime and excellent resale value



Kelly drilling



Cased Kelly drilling
Casing Installation with BTM



CFA
Continuous flight
auger Method



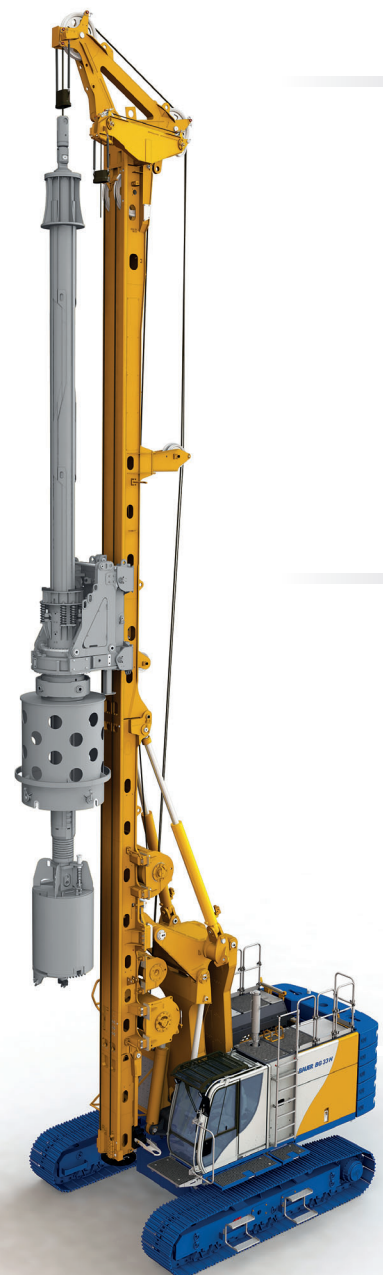
FDP
Full Displacement Piling
(Standard or Lost Bit)



FoW
Front-of-wall Method



TR
Vibrator

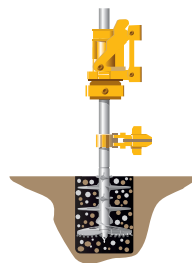


The Drilling Rig BG 33 H (BT 75)

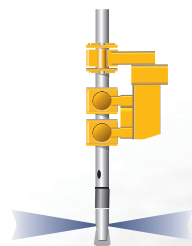
Max. drilling diameter: 2,500 mm
 Max. drilling depth: 65.7 m
 Max. torque: 320 kNm
 Max. height: 24.9 m
 Engine: CAT C 9.3 B 310/340 kW



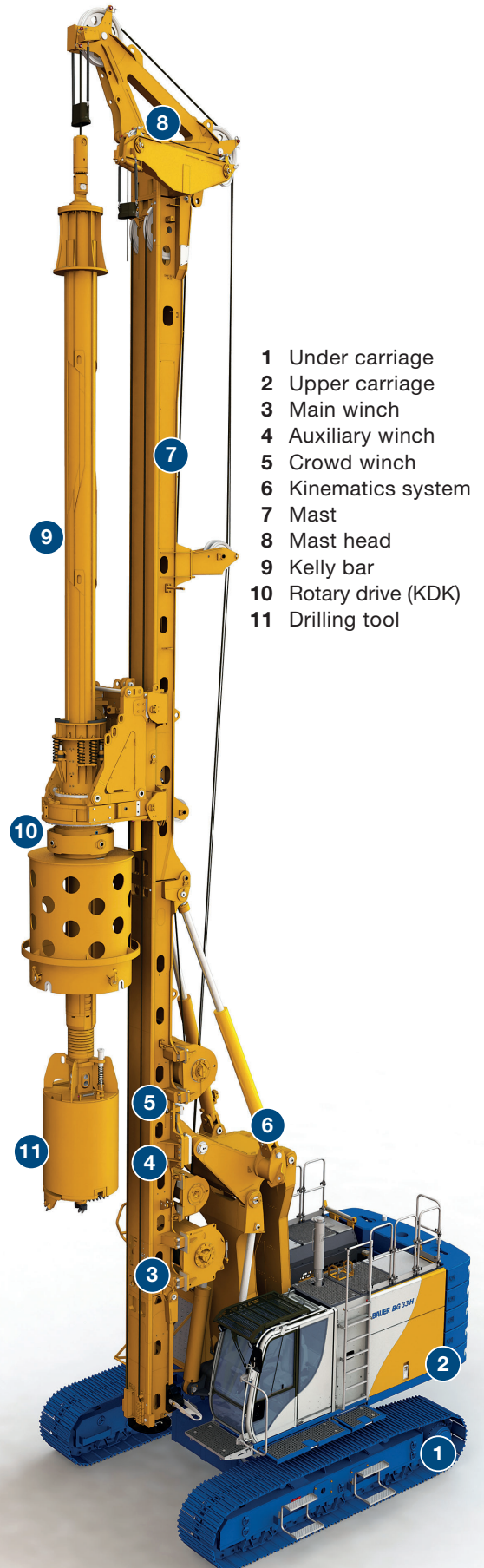
Cased Kelly drilling
Casing installation with casing oscillator



SCM/SCM-DH
Single Column Mixing



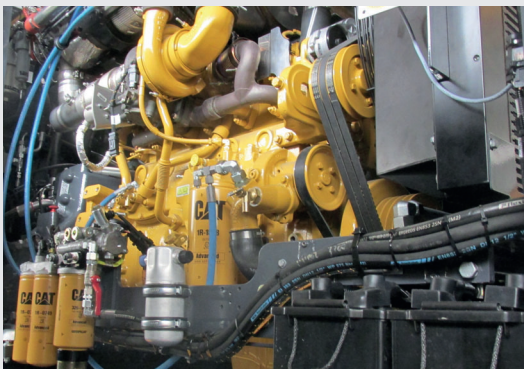
HDI
Jet Grouting



- 1 Under carriage
- 2 Upper carriage
- 3 Main winch
- 4 Auxiliary winch
- 5 Crowd winch
- 6 Kinematics system
- 7 Mast
- 8 Mast head
- 9 Kelly bar
- 10 Rotary drive (KDK)
- 11 Drilling tool

Modern, ergonomic operator's cab

- FOPS compliant with additional protective roof guard
- Premium operator seat, air-sprung, heatable and air-conditioned
- Joystick controls with high functionality
- B-Drive for multi-functional potentiometer input



High-performance CAT engines

- CAT C 9.3 B (ORA* or Stage V / Tier 4 final)
- Diesel particulate filter in exhaust emission standard Stage V / Tier 4 final
- Low noise emission
- Worldwide CAT service partners

Safety equipment

- Integrated service platforms in the upper carriage for easy and safe maintenance work
- Retractable grating on side of cab
- Guardrails on the upper level (foldable for transport)

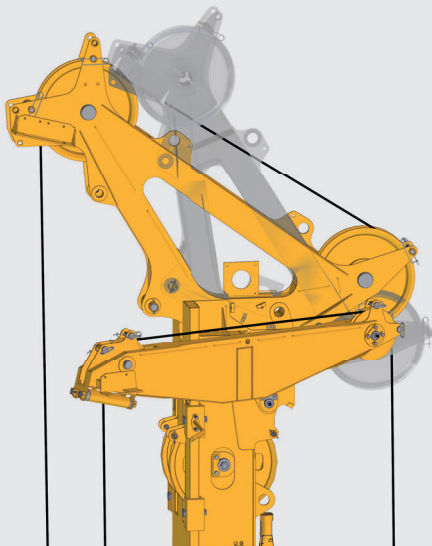


- Reduction of fuel consumption by up to 30%
- Increased productivity through improved efficiency
- Significantly reduced noise levels
- Tried and proven suitability for practical application
- Optimized parallel operation of main and auxiliary consumers

* Emission standard equivalent to Tier 3 / Stage III A

Variably stackable counterweights elements

- Constant tail radius (irrespective of number of counterweights)
- Low weight of individual elements (4.9 t or 2.5 t)
- Flexible arrangement for various applications
- Mounting and demounting possible with the drilling rig
- Transport of the machine possible without removing counterweights



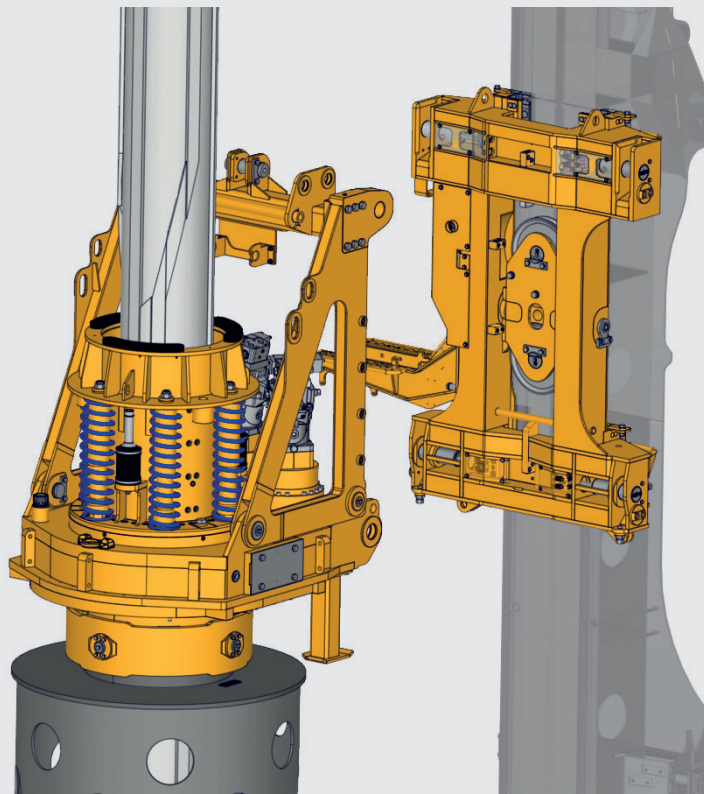
Flexible mast concept

- Three-sectional mast
 - Low-head version
 - Giant drill version
 - Optimized transport length
- Upper mast extension 2 m (hydraulically foldable and lockable)
 - Simple and secure attachment, no working at heights unsecured
 - Reduced transport length
- Vario mast head
 - Masthead for drill axis 1,000 expandable to 1,400 mm
 - Increased stroke for Kelly bars when using an upper Kelly guide
 - Foldaway main winch boom for single-pass method and optimized transport length

Remote control for equipment setup

- Remote control can be used to activate many setup functions, such as moving the drilling rig, telescoping the under carriage etc., outside the danger zone
 - Operation within sight of the triggered setup functions
 - Rugged and compact wireless remote control, remote control Multi with LCD screen
 - Lockable storage box for the remote control can be accessed from the ground





Kelly set-up

- Long Kelly guide
- Integrated shock absorbing spring system
- Kelly visualization (see page 15)
- Enhanced drilling performance
- High operation comfort
- Reduction of wear on Kelly bar and drive keys

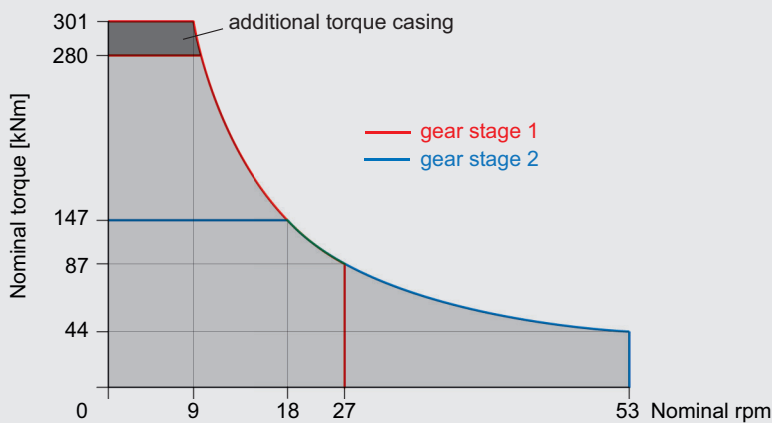
Rotary drive

- Optional single gear drive or multi gear drive
- Max. torque 320 kNm
- Max. speed 53 rpm
- Various modes of operation, partially selectable speed of rotation and torque

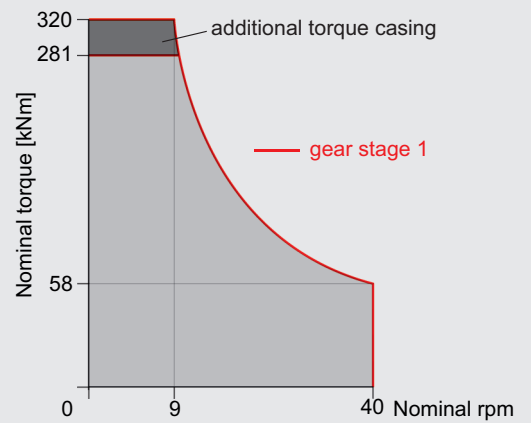
Hydraulically operated pin connection on the crowd sledge

- Pin connection controlled via the remote control
- Simple and secure attachment of the rotary drive, no working at heights unsecured

KDK 300 S



KDK 340 K



Base carrier BT 75

Standard

- Removable counterweights
- Retractable grating on side of cab
- Energy-Efficient Power (EEP)
- Premium operator's seat
- 2 rear view cameras
- Integrated service platform

Additional equipment

- Counterweight, variably adjustable
- Guardrails on the upper level (foldable for transport)
- High-pressure cleaner with water tank
- Rear support unit
- Compressor 1,000 l/min
- Generator 13 kVA
- Low-temperature package / Low-temperature package plus
- Cab space heater with automatic timer
- Remote control Basic / Multi
- Premium operator seat with air-condition
- Weather protection

Drilling rig attachments

Standard free-fall

- Main winch with hydraulic free-wheel control
- Swivel for main rope
- Masthead (foldable for transport)
- Pivoted anchor point for main and auxiliary rope

Additional equipment

- Vario-masthead
- Extension of drill axis to 1,400 mm
- Hydraulically operated pin connection on the crowd sledge for easy mounting and removal of the rotary drive
- Mast support
- Mast extension 2 m, hydraulically foldable and lockable
- Three-sectional mast for Low Head and Giant Drill applications
- Additional auxiliary winch 20 kN
- Attachment of casing oscillator up to BV 1500
- Auger cleaner attachment for Kelly system

Rotary drive

Standard single-gear

- Rotary drive KDK 300 S (multi-gear drive)
- Kelly drive adapter for outer Kelly tube 419 mm
- Integrated Kelly shock absorbing system
- Quick-release hydraulic couplers

Additional equipment

- Rotary drive KDK 340 K (single-gear drive)
- Torque multiplier BTM 720 K for Kelly drilling
 - Torque 400 kNm (nominal)

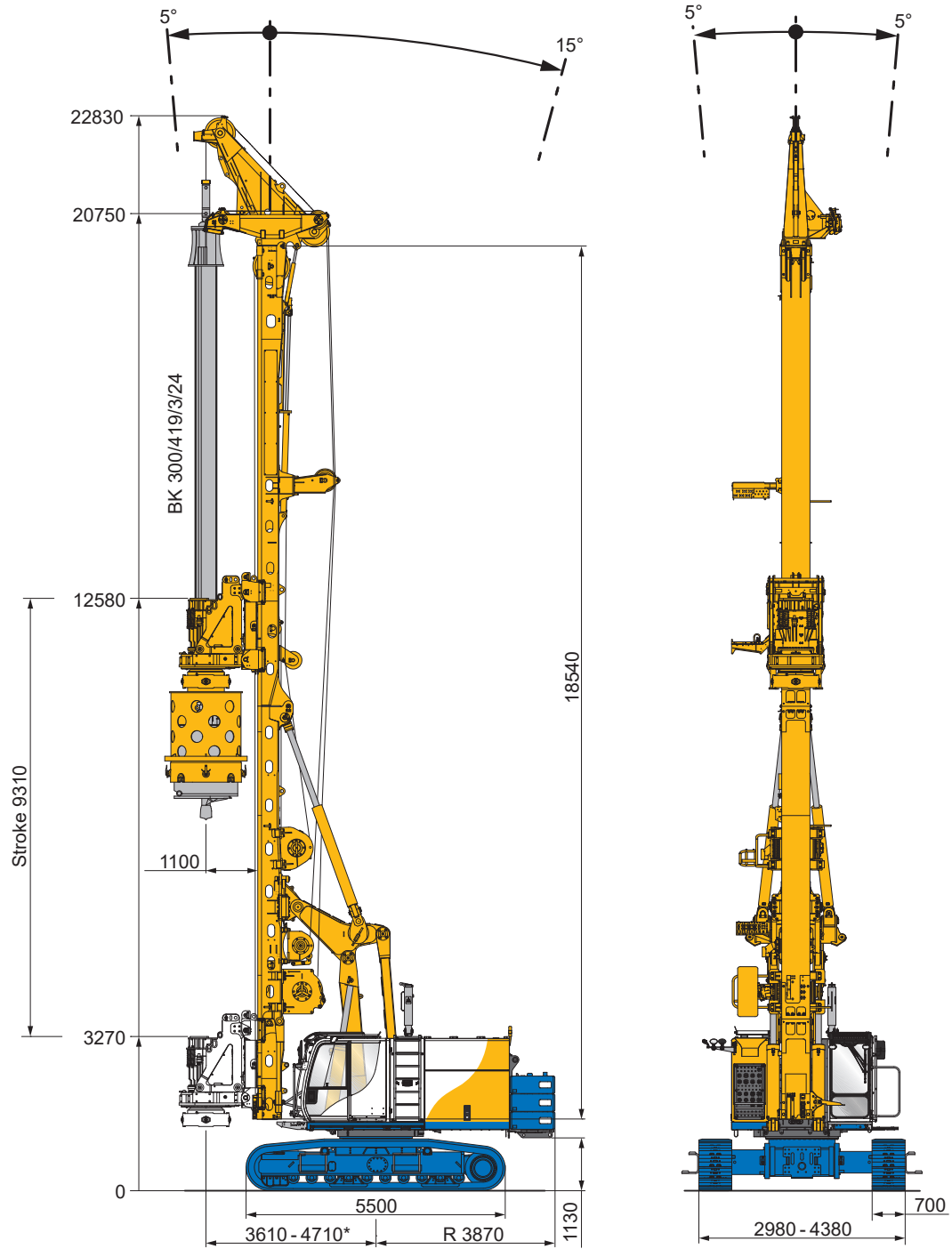
Measurement and control technology

Standard

- Automatic mast alignment with memory-recall
- Crowd stroke monitoring
- Kelly visualization
- Electronic mast reach limiter

Additional equipment

- Electronic load sensing for auxiliary winch
- Recording of concrete pressure and volume for Single-Pass processes
- Software modules for further applications
- Adaptive Kelly Speed assistant
- Automatic drilling and extraction control for Single-Pass processes
- BAUER Enhanced CAN Interface (BECI)
- Crowd Plus



Operating weight 88.9 t
(as shown)

* depending on equipment

Rotary drive (selectable)	KDK 300 S	KDK 340 K
Torque (nominal) for casing operation at 350 bar	301 kNm	320 kNm
Torque (nominal) for drilling at 350 bar	280 kNm	281 kNm
Max. speed of rotation	53 rpm	40 rpm
Crowd winch		
Max. sledge stroke with 2 m mast extension	17,700 mm	
Crowded force push and pull, effective/nominal	330 / 423 kN	
Rope diameter	24 mm	
Speed (up / down)	9.9 m/min	
Fast speed (up / down)	32 m/min	
Main winch		
Line pull (1st layer) effective / nominal	M6 / L3 / T5 215 / 270 kN	
Rope diameter	28 mm	
Line speed (max.)	85 m/min	
Auxiliary winch (selectable)		
Line pull (1st layer) effective / nominal	80 / 100 kN	100 / 125 kN
Rope diameter	20 mm	
Line speed (max.)	55 m/min	
Base carrier (EEP)		
Engine	BT 75 CAT C 9.3 B	
Rated output ISO 3046-1	310 kW	340 kW
Exhaust standards in accordance with EU 2016/1628	ORA*	Stage V
EPA/CARB	ORA*	Tier 4 final
GB20891-2014	China Stage III	-
Diesel tank / AdBlue tank	730 / - l	730 / 34.5 l
Sound pressure level in cabin (EN 16228, Annex B)	L _P A 80 dB (A)	
Sound power level (2000/14/EG and EN 16228, Annex B)	L _W A 110 dB (A)	
Hydraulic oil tank capacity	650 l	
Flow rates	2 x 250 + 1 x 400 + 1 x 135 l/min	
Undercarriage		
Crawler type	B 7	
Traction force effective / nominal	520 / 610 kN	

* Emission standard equivalent to Stage III A / Tier 3

B-Tronic

With the Bauer B-Tronic system, you can reliably and precisely accomplish your tasks on the construction site, even under extreme application conditions.

- The high-resolution touchscreen display makes operation extremely user-friendly
- By changing the brightness, color scheme and day/night mode, the display of the operating situation and light exposure can be optimally adjusted
- The main parameters, such as pump pressures, torque and drilling depths are visible at a glance



B-Drive

The B-Drive is a central operating and visualization system

- B-Drive combines configurable potentiometer values in one display
- Ergonomic placement of the display on the right column of the operator's cab

Tablet

The tablet is the multifunctional tool for your Bauer machine

- You have online access to the customer portal, manuals, equipment management and lots more
- Default internet connection via the DTR module located in the machine
- The operator screen can be mirrored live onto the tablet in order to follow the ongoing work process



Equipment networking

DTR module

- With the DTR module, equipment and product data can be provided to a range of users

WEB-BGM

- WEB-BGM is a software for accessing equipment data and locations of the equipment fleet even when you are not on site

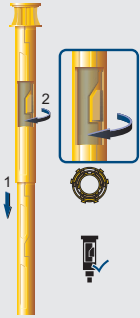
Report for production data

- Standardized reports to document drilling progress and as proof of performance and quality



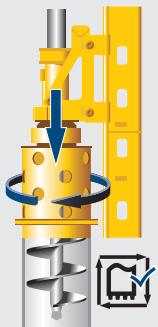
Adaptive Kelly speed assistant

The assistant raises and lowers the Kelly bar safely and quickly and allows an easy operation. The automatic control of the speed of the main winch reduces the speed at the transition points of the Kelly sections. This provides maximum safety with minimum wear. The permanent monitoring of the parameters prevents a locked Kelly bar from being raised or lowered accidentally and thus causing damage.



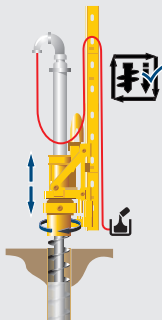
Kelly visualization

Display of the locking recesses, as well as representation of the controlled extension and retraction of the Kelly bar on the B-Tronic system. The rapid approach of the locking position results in a considerably enhanced drilling performance. In addition, the level of wear that the Kelly bar and drive keys are.



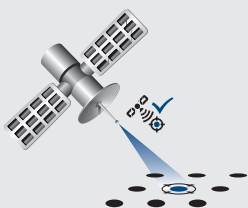
Kelly drilling assistant

Saves the current crowd speed and the speed of the rotary drive. It enhances drilling performance with simultaneous hands-free operation. Drilling parameters can be adjusted during the automated drilling procedure.



Automatic drilling and extraction control for Single-Pass processes

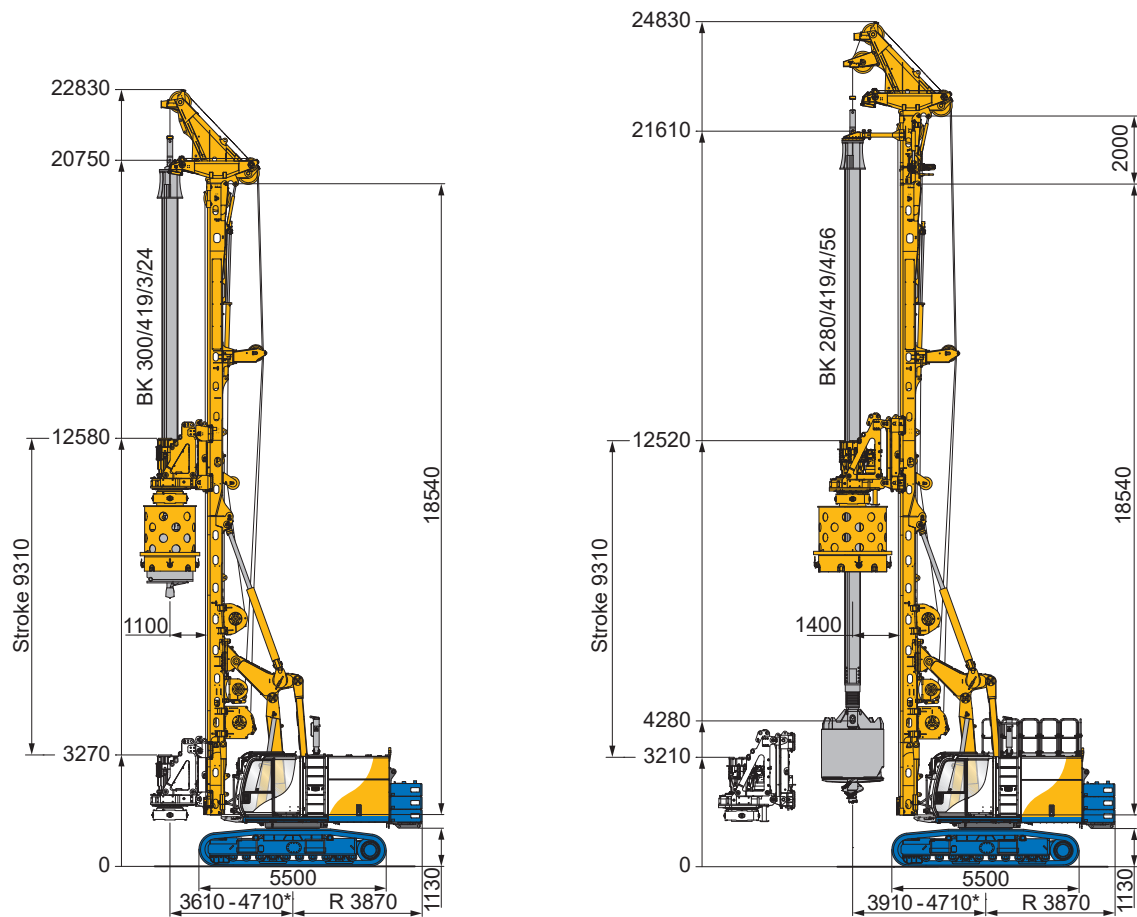
The system controls the drilling and/or extraction speed of the crowd system and enables hands-free operation. This ensures the production of a high-quality pile while simultaneously minimizing the amount of concrete.



Satellite-based positioning

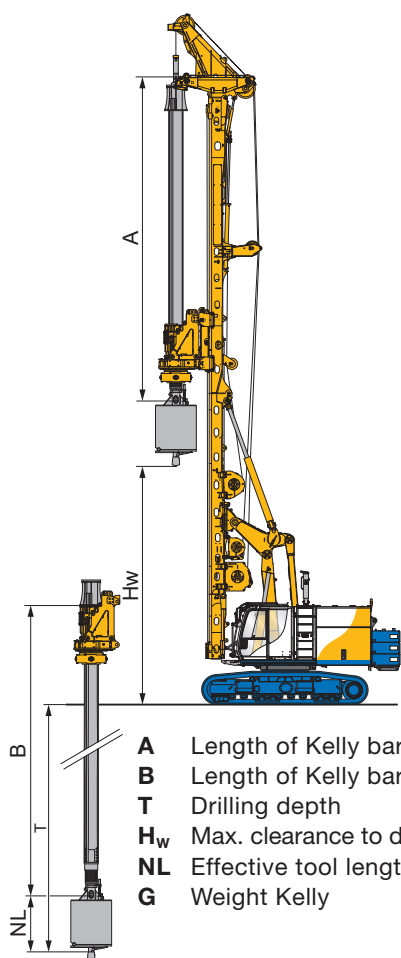
The BAUER-Assistant Positioning System (B-APS) allows the position of a bored pile to be located extremely accurately. Documentation is provided for the nominal and actual coordinates, as well as the corresponding accuracy of each bored pile. Manual marking of the piles is no longer required.

Many other assistance systems are available in our portfolio.



	Basic version	Upgraded version
Mast extension	without	2 m
Upper Kelly guide	without	with
Drill axis	1,100 mm	1,400 mm
Max. drilling diameter		
uncased	1,900 mm	2,500 mm
cased	1,600 mm	2,200 mm
Operating weight approx.	88.9 t	103.6 t
with Kelly	3/24	4/56
with casing drive adapter	1,500 mm	2,000 mm
with bucket	1,350 mm	1,830 mm
with counterweight *	12.3 t	12.3 t

* depending on equipment



- A** Length of Kelly bar (retracted)
- B** Length of Kelly bar (extended, unlocked)
- T** Drilling depth
- H_w** Max. clearance to drilling tool
- NL** Effective tool length
- G** Weight Kelly

Drilling depths (unlocked) – uncased Kelly drilling, drill axis 1,100 mm

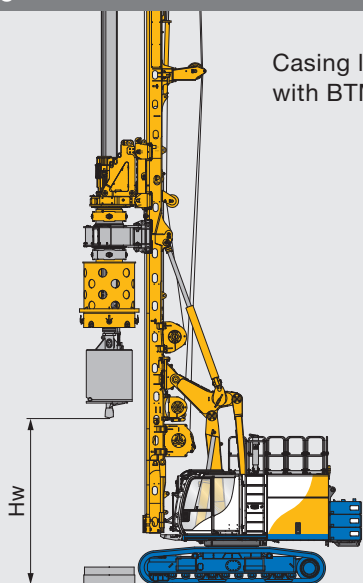
				without mast extension		2.0 m mast extension	
	A (m)	B (m)	G (kg)	H _w (m)	T (m)	H _w (m)	T (m)
3-part Kelly							
BK/300/419/3/24	10.7	26.4	5,500	7.9	25.0	7.9	25.0
BK/300/419/3/27	11.7	29.4	5,900	6.9	28.0	7.9	28.0
BK/300/419/3/30	12.7	32.4	6,350	5.9	31.0	7.9	31.0
BK/300/419/3/33	13.7	35.4	6,800	4.9	34.0	6.9	34.0
BK/300/419/3/36	14.7	38.4	7,200	3.9	37.0	5.9	37.0
BK/300/419/3/42	16.7	44.4	8,050*	1.9	43.0	3.9	43.0
BK/300/419/3/48	18.7	50.4	9,400*	-	-	1.9	49.0
Quadruple Kelly							
BK/280/419/4/32	11.3	34.2	7,700	7.3	32.8	7.9	32.8
BK/280/419/4/36	12.3	38.2	8,350	6.3	36.8	7.9	36.8
BK/280/419/4/40	13.3	42.2	8,950	5.3	40.8	7.3	40.8
BK/280/419/4/44	14.3	46.2	9,600	4.3	44.8	6.3	44.8
BK/280/419/4/48	15.3	50.2	10,300	3.3	48.8	5.3	48.8
BK/280/419/4/56	17.3	58.2	11,550*	1.3	56.8	3.3	56.8
BK/280/419/4/64	19.3	66.2	12,800*	-	-	1.3	64.8

(* interpolated) (T=B+W-H)

Drilling data have been determined with an effective tool length of NL = 1.9 m and with the mast at a minimum operating radius. These data only apply for the use of Bauer tools.

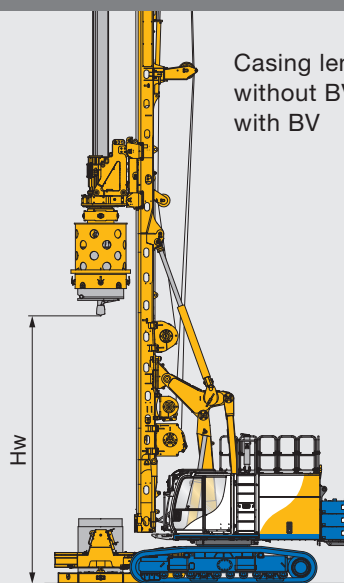
Other drilling depths, drilling diameters and Kelly versions are available on request.

Torque multiplier BTM 720 for a torque while casing of 400 kNm

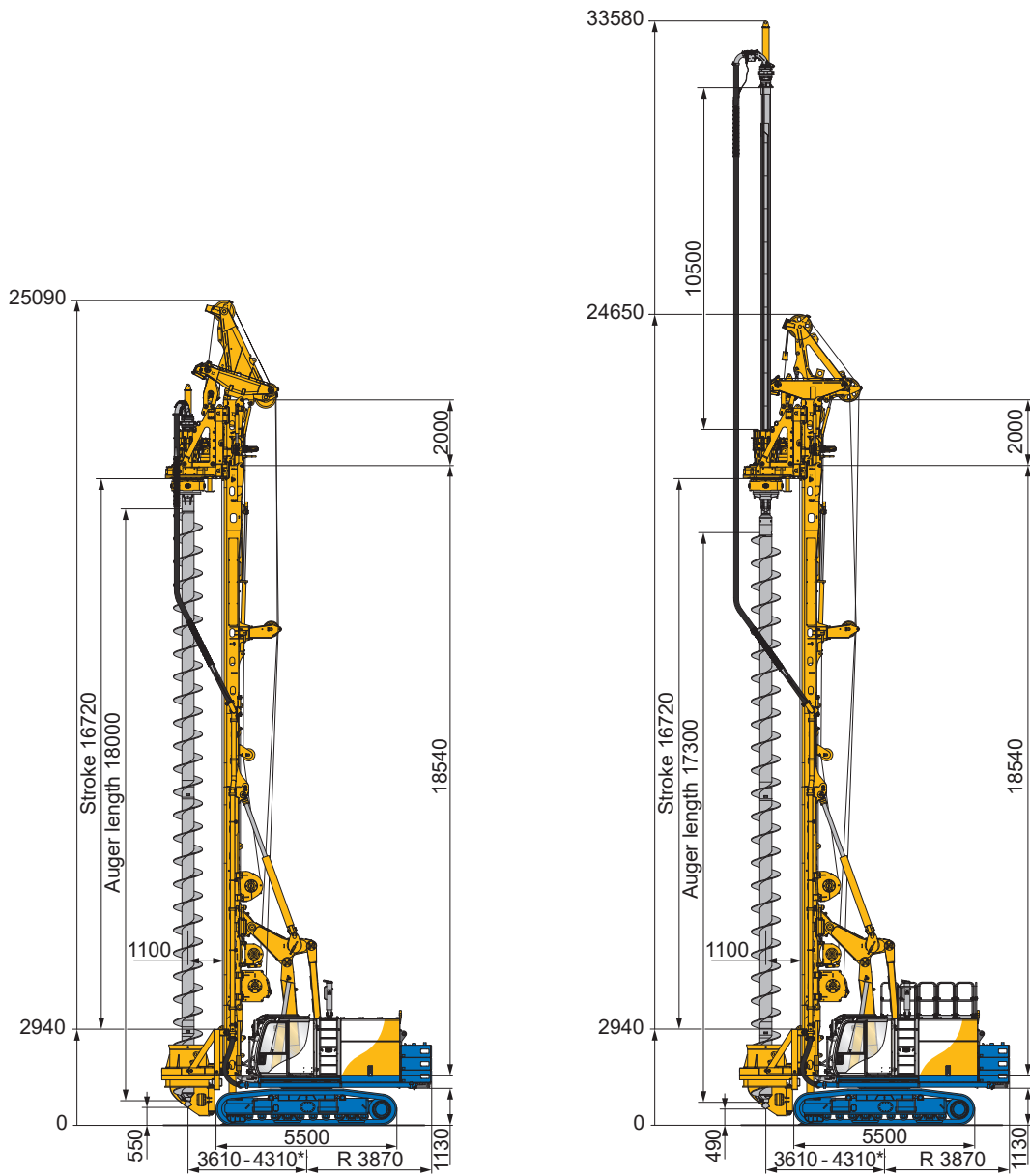


Casing lengths with BTM = H_w - 0.5 m
= H_w max. 7.4 m

Kelly drilling with casing oscillator up to BV 1500

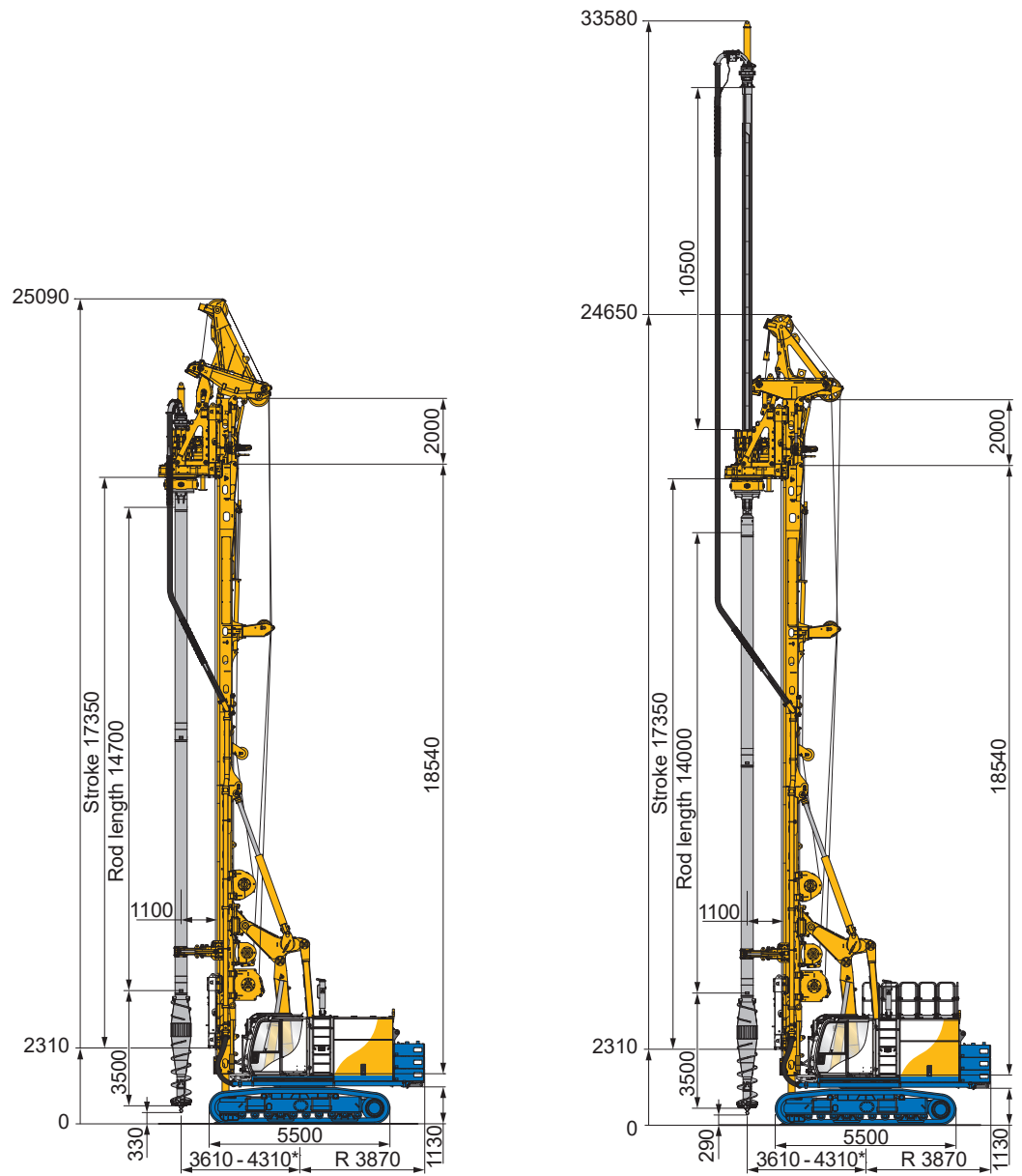


Casing lengths without BV = H_w - 0.5 m
with BV = H_w - 1.6 m



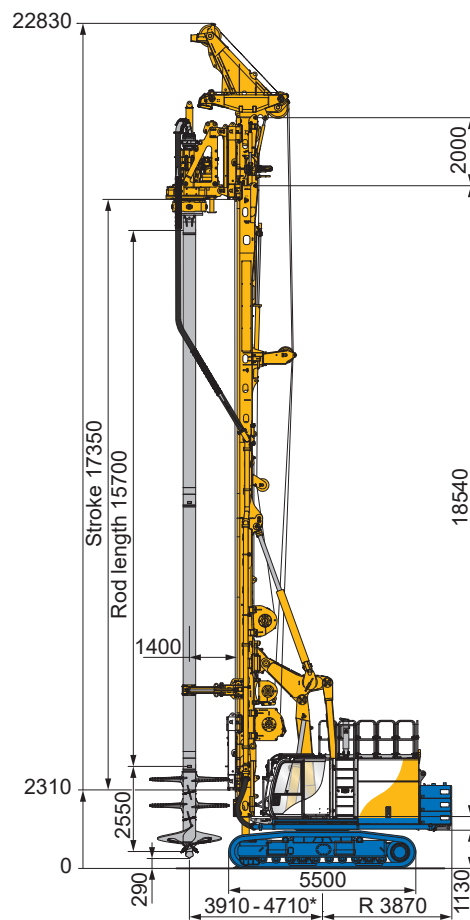
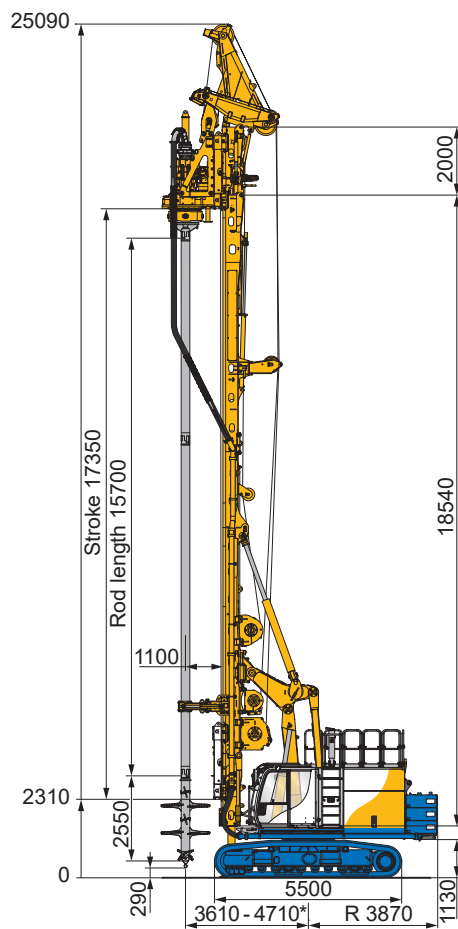
	Basic version	Upgraded version
Mast extension	2 m	2 m
Kelly extension	without	10.5 m
Max. drilling diameter	1,200 mm	1,200 mm
Drilling depth with auger cleaner	16.3 m	26.8 m
Max. extraction forth with main- and crowd winch (effective)	730 kN	730 kN
with counterweight *	12.3 t	14.7 t

* depending on equipment



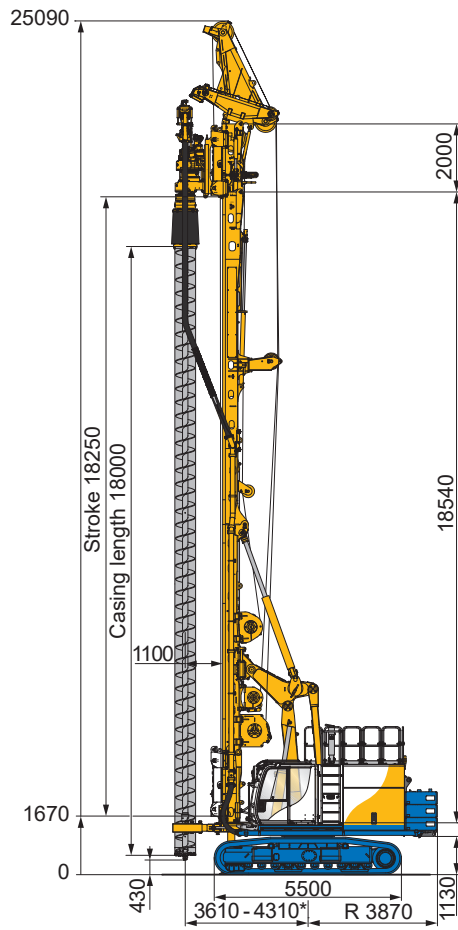
	FDP drilling Basic version	FDP drilling Upgraded version
Mast extension	2 m	2 m
Kelly extension	without	10.5 m
Max. drilling Diameter FDP	620 mm	620 mm
Max. drilling depth FDP	16.8 m	27.3 mm
Max. extraction force with main- and crowd winch (effective)	730 kN	730 kN
with counterweight *	12.3 t	14.7 t

* depending on equipment



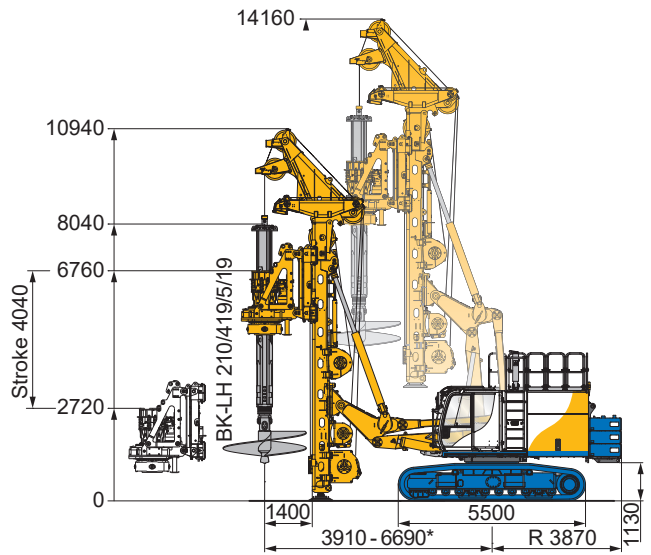
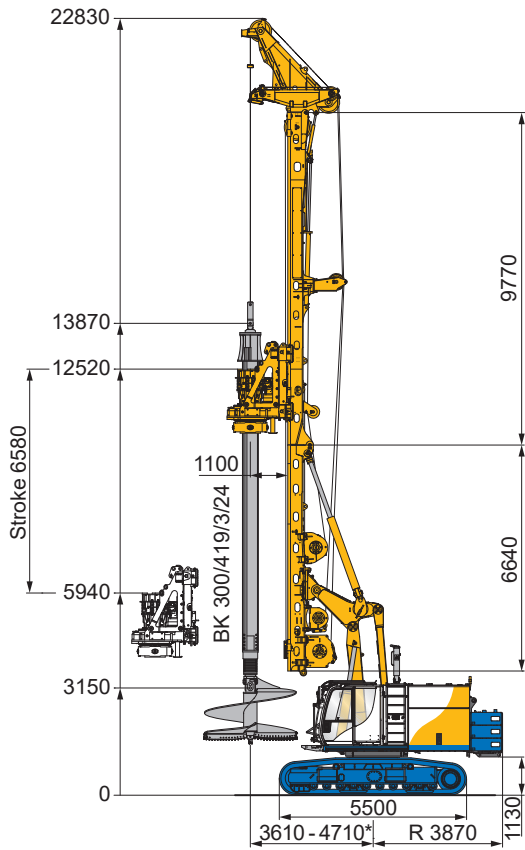
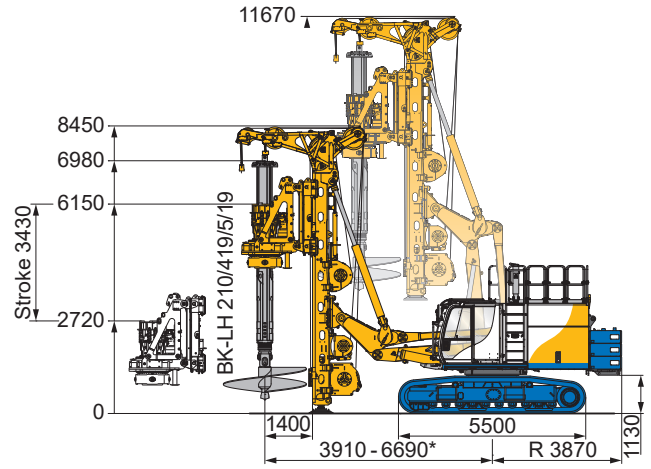
	SCM mixing Basic version	SCM mixing Upgraded version
Mast extension	2 m	2 m
Kelly extension	-	-
Drill axis	1,100 mm	1,400 mm
Max. mixing diameter	1,500 mm	2,500 mm
Max. mixing depth with casing guidance	16.8 m	16.8 m
Max. pulling force with crowd winch and main winch (effective)	730 kN *	730 kN *
with counterweight *	12.3 t	12.3 t

* depending on equipment



	FoW drilling DKS 50/140
Torque auger / casing	50/140 kNm
Mast extension	2 m
Max. drilling diameter	610 mm
Max. drilling depth	17.7 m
Max. extraction force with main and crowd winch (effective)	500 kN
with counterweight	without
Ejection system *	12.3 t

* depending on equipment



	Giant Drill - Basic version	Low Headroom System
Lower mast extension	without	-
Drill axis	1,100 mm	1,100 / 1,400 mm
Max. drilling diameter	3,000 mm	1,900 / 2,500 mm
Max. drilling depth	-	19.5 m

* depending on equipment

G = Weight
B = Width

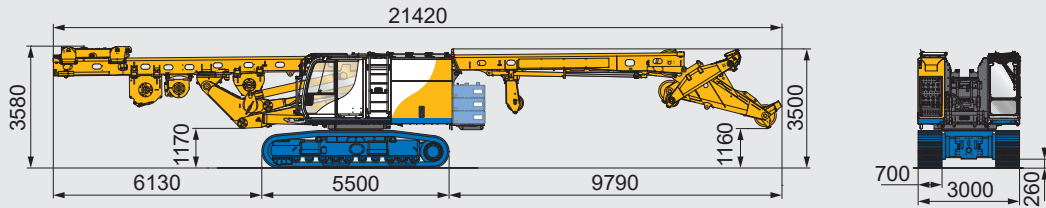
Weights shown are approximate values; optional equipment may change the overall weight and dimensions.

Transport

Without mast extension *

G = 62.9 t

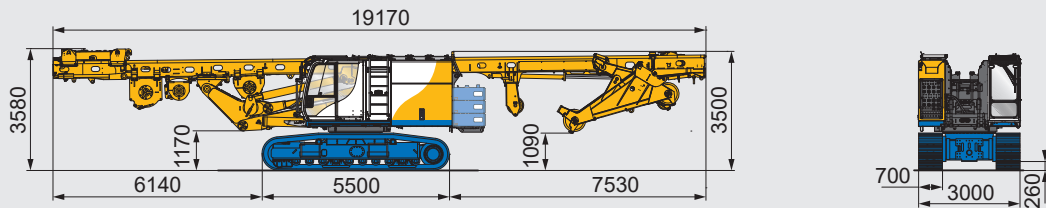
G = 75.2 t with 12.3 t counterweight



With mast extension *

G = 64.0 t

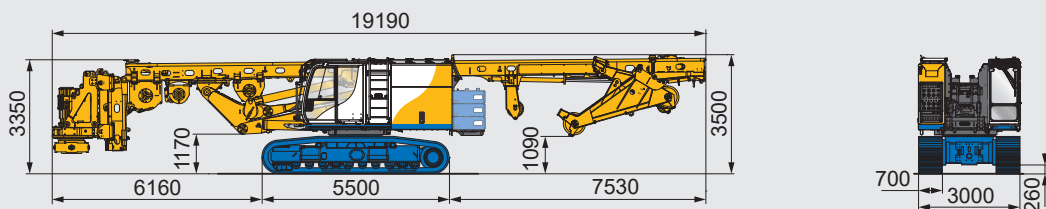
G = 76.3 t with 12.3 t counterweight



Lower mast section with rotary drive and folded mast extension

G = 71.8 t incl. rotary drive

G = 84.1 t incl. rotary drive with 12.3 t counterweight



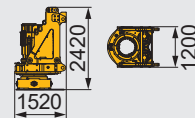
Counterweight **

G = 2 x 4.9 + 1 x 2.5 t
B = 3,000 mm



Rotary drive

G = 5.5 t (KDK 300 S)
G = 6.7 t (KDK 340 K)



UW 80

Track Shoes	Overall width of crawlers retracted / extended
700 mm	3,000 - 4,400 mm
800 mm	3,300 - 4,500 mm
900 mm	3,400 - 4,600 mm

* More weight with three-sectional mast approx. 500 kg

** depending on the method



Global Network



Service



Equipment



Training

International Service Hotline

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+49 8252 97-2888

BMA-Service@bauer.de

* Where available

24/7



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