

BAUER BG 23 H

Drilling Rig
Base Carrier BT 65

 Energy-Efficient
PowerEEP



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 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
Installation with Oscillator



CFA
Continuous Flight
Auger Drilling



FDP
Full Displacement Piling
(Standard or Lost Bit)



FoW
Front of Wall



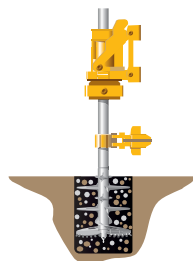
VD*
Vibro Displacement



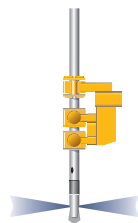
* not possible with Version UW 50

The Drilling Rig BG 23 H (BT 65)

Max. drilling diameter:	1,500 mm
Max. drilling depth:	53.7 m
Max. torque:	235 kNm
Max. height:	22.2 m
Engine:	CAT C 7.1 186 / 238 kW



SCM
Single Column Mixing



HDI*
Jet Grouting



- 1 Under carriage
- 2 Upper carriage
- 3 Main winch
- 4 Auxiliary winch
- 5 Crowd winch
- 6 Kinematic 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

Powerful CAT engines

- C 7.1 186 kW (UN/ECE R96*) or C 7.1 238 kW (EU Stage V, EPA/CARB Tier 4 final)
- Diesel particulate filter in exhaust emission standard EU Stage V, EPA/CARB 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 gratings beside the cab
- Guardrails on top of the upper carriage (foldable for transport)
- Rear view cameras



- 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

* Exhaust emission equivalent EPA Tier 3 and EU Stage III A

Compact, powerful and versatile

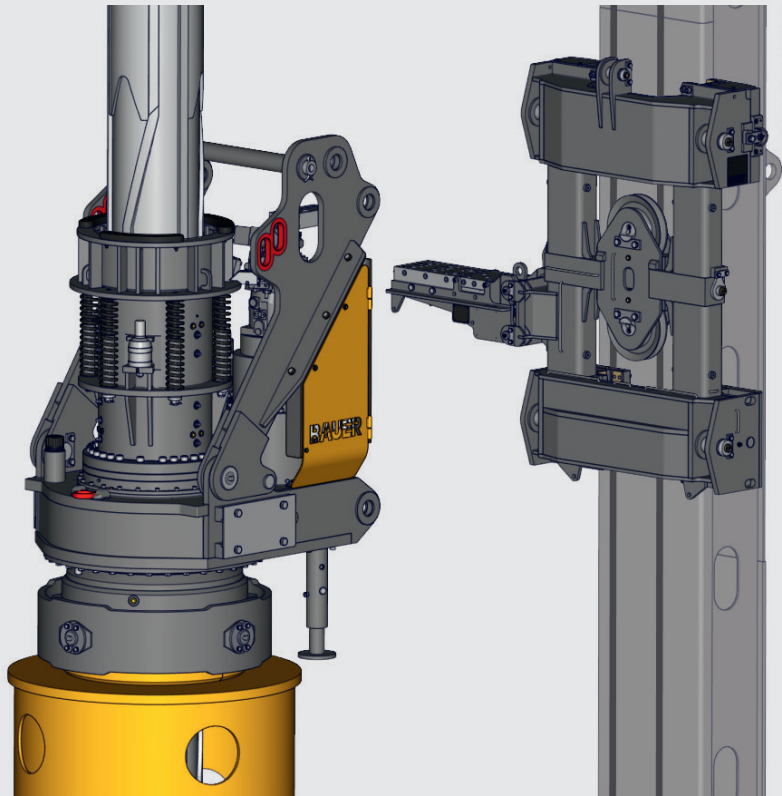
- Fast mobilization and comfortable moving of the rig
- Transport possible with rotary drive attached and Kelly bar installed
- Flexible and efficient operation, even on confined jobsites



Flexible mast concept

- Multi-sectional mast
 - Low-head version
 - Giant drill version
 - Extension package Single Pass Extreme (SPEX)
For further details please refer to page 18
 - Optimized transport length
- Lattice mast extension
- Vario mast head
 - Mast head for drill axis 900 mm
 - Maximum stroke, even when using an upper Kelly guide
 - Tilttable main jib for single-pass methods and optimized transport length





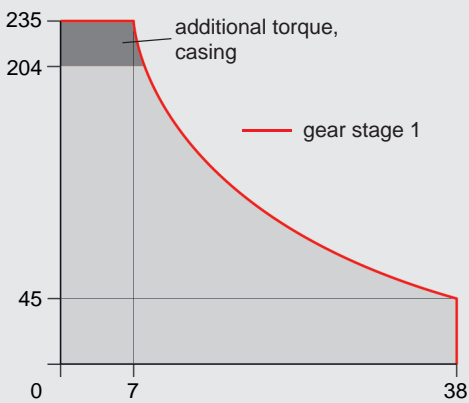
Rotary drive

- Optional single gear drive or multi gear drive
- Max. torque 235 kNm
- Max. speed 64 rpm
- Various modes of operation, partially selectable speed of rotation and torque

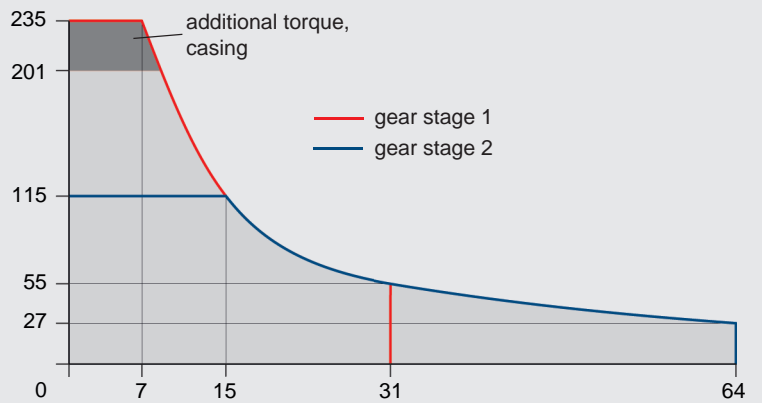
Kelly set-up with a long Kelly guide and integrated shock absorbing system with Kelly visualization

- Enhanced drilling performance
- High operation comfort
- Reduction of wear on Kelly bars and drive keys

KDK 235 K



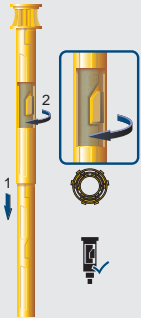
KDK 235 S





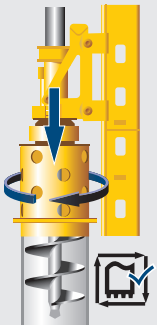
Adaptive Kelly speed assistant

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.



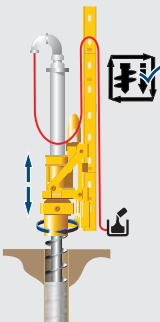
Kelly visualization

Display of the locking recesses and the correct 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 subject to is significantly reduced.



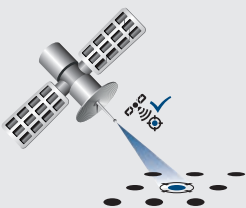
Kelly drilling assistant

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.

Numerous other assistance systems are available in our portfolio.

Base carrier BT 65

Standard

- Retractable gratings beside cab
- Cameras for rear area surveillance
- Integrated service platforms

Optional

- Compressor 1,000 l/min
- Electric generator 13 kVA
- Cab space heater incl. time switch
- Arctic kit
- Additional camera (at customized location)
- Weather protection
- Remote control Basic / Multi

Drilling rig attachment

Standard

- Vario mast head
- Pivoted and adjustable anchor point for auxiliary rope

Optional

- Mast support unit
- Vario mast head
- Extension package Single Pass Extreme (SPEX) (version UW 60)
- Attachment of casing oscillator
- Concrete line attachment
- Attachment of slurry line

Rotary drive

Standard

- Rotary drive KDK 235 K
- Selectable modes of operation
- Kelly drive adapter for outer Kelly tube 368 mm
- Quick-release hydraulic couplers

Optional

- Rotary drive KDK 235 S

Measuring and control system

Standard

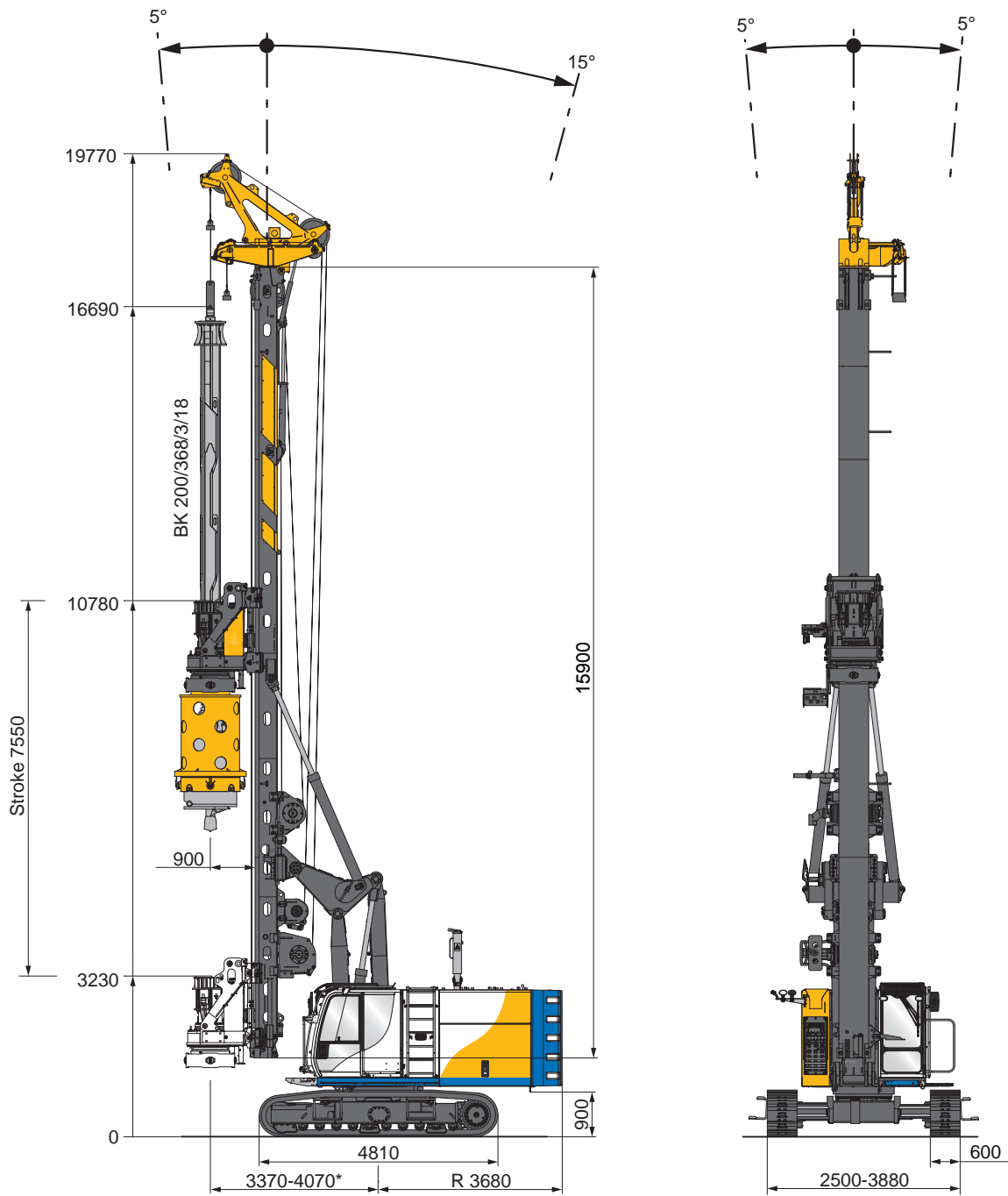
- Automatic mast alignment with memory function
- Crowd stroke monitoring
- Kelly visualization
- Electronic mast limit control

Optional

- 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
- Stability Plus

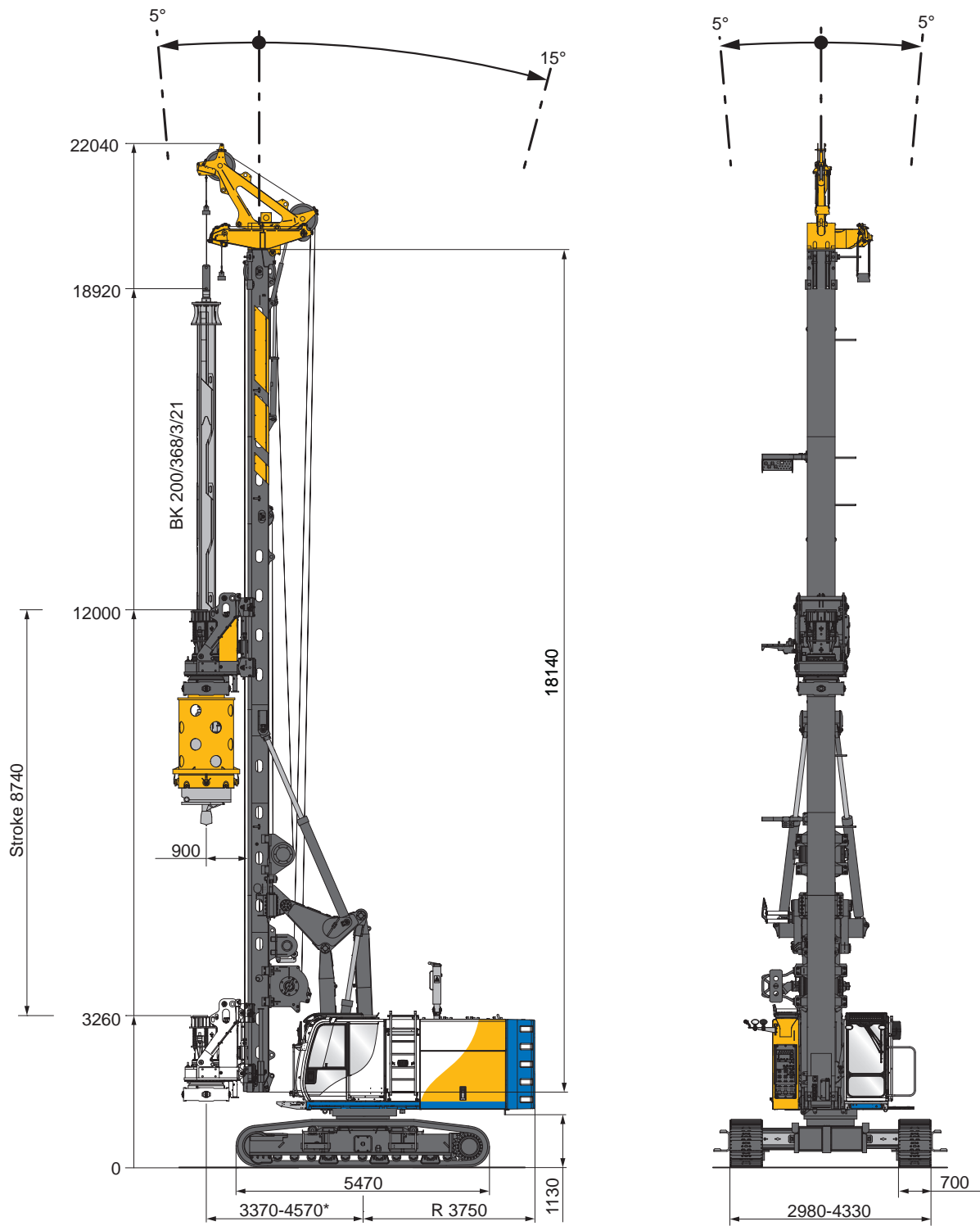
Rotary drive (selectable)	KDK 235 K	KDK 235 S
Torque (nominal) for casing operation at 350 bar	235 kNm	235 kNm
Torque (nominal) for drilling at 350 bar	204 kNm	201 kNm
Max. speed of rotation	38 rpm	64 rpm
Crowd winch	Version UW 50	Version UW 60
Winch classification	M6 / L3 / T5	
Max. sledge stroke	13,140 mm	15,580 mm
Crowd force push and pull, effective / nominal	260 / 333 kN	
Rope diameter	22 mm	
Speed (down / up)	10.5 m/min	
Fast speed (down / up)	29.5 m/min	
Main winch	Version UW 50	Version UW 60
Winch classification	M6 / L3 / T5	
Line pull (1st layer) effective / nominal	140 / 173 kN	170 / 210 kN
Rope diameter	22 mm	26 mm
Max. line speed	84 m/min	
Auxiliary winch (selectable)		
Winch classification	M6 / L3 / T5	
Line pull (1st layer) effective / nominal	55 / 70 kN	65 / 80 kN
Rope diameter	15 mm	
Max. line speed	62 m/min	
Base carrier (EEP)	BT 65	
Engine	CAT C 7.1	CAT C 7.1
Rated output ISO 3046-1	186 kW @ 1,850 rpm	238 kW @ 1,850 rpm
Exhaust emission	UN/ECE R96*	EU Stage V EPA/CARB Tier 4 final
Diesel tank capacity / AdBlue Tank	540 / – l	540 / 34.5 l
Sound pressure level in the cabin (EN 16228, Annex B)	L _P A 80 dB (A)	
Sound power level (2000 / 14 / EC u. EN 16228, Annex B)	L _W A 108 dB (A)	
Hydraulic pressure	350 bar	
Hydraulic tank capacity	450 l	
Flow rates	2 x 220 + 1 x 280 + 1 x 135 l/min	
Under carriage	Version UW 50	Version UW 60
Under carriage	UW 50	UW 60
Crawler type	B 60	B 60
Traction force effective / nominal	340 / 400 kN	450 / 530 kN
Transport width	2,500 mm	3,000 mm

* Exhaust emission equivalent EPA Tier 3 and EU Stage III A



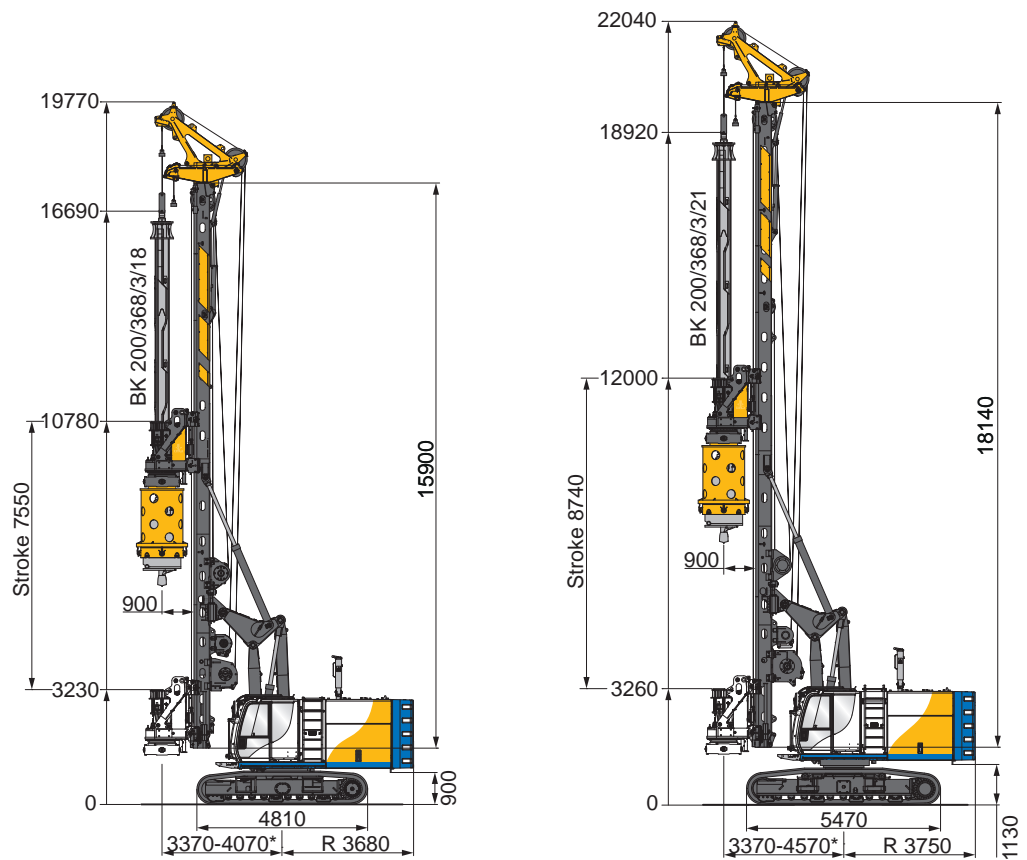
Operating weight 62.2 t
(as shown)

* depending on equipment



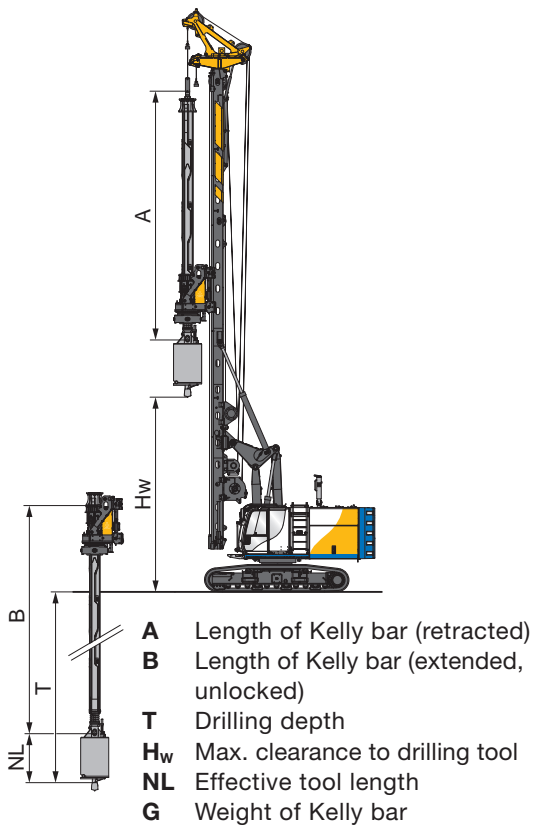
Operating weight 69.7 t
(as shown)

* depending on equipment



	UW 50	UW 60
Under carriage	UW 50	UW 60
Unit height	19.8 m	22.0 m
Max. drilling diameter		
uncased	1,500 mm	1,500 mm
cased	1,200 mm	1,200 mm
Operating weight approx.	62.2 t	73.7 t
with Kelly BK 200 / 368 / / 3 / 18	... / 4 / 40
with casing drive adapter	1,180 mm	1,180 mm
with bucket	1,060 mm	1,060 mm
with counterweight*	7.6 t	10.0 t

* depending on equipment



Drilling data as shown are based on tool length NL = 1.9 m, minimum horizontal mast reach and using Bauer attachment. Drilling depth is increased by 0.28 m when using maximum horizontal mast reach.

Drilling depth – uncased Kelly drilling, Version UW 50

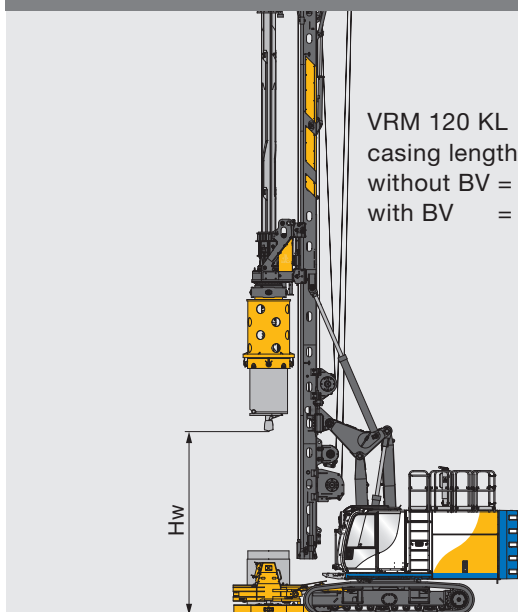
3-part Kelly bar	A (m)	B (m)	G (kg)	H _w (m)	T (m)
BK200/368/3/15	7.4	17.4	3,100	6.1	16.0
BK200/368/3/18	8.4	20.4	3,400	6.1	19.0
BK200/368/3/21	9.4	23.4	3,750	6.1	22.0
BK200/368/3/24	10.4	26.4	4,100	5.1	25.0
BK200/368/3/30	12.4	32.4	4,750	3.1	31.0

Drilling depth – uncased Kelly drilling, Version UW 60

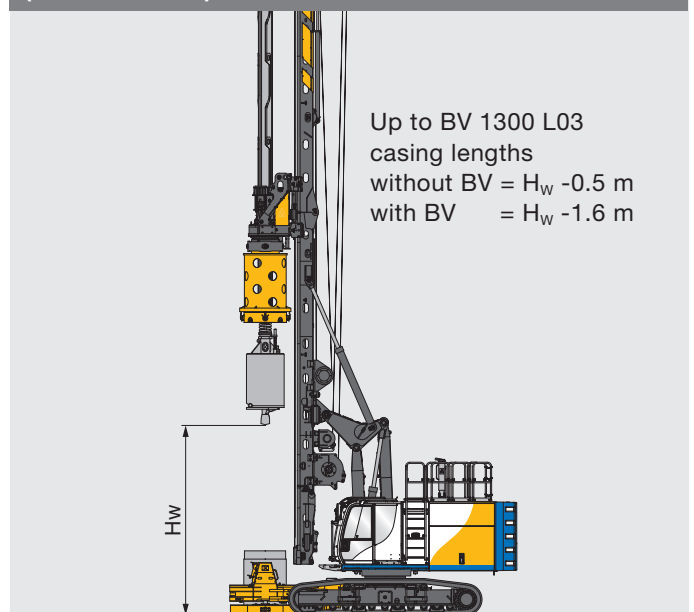
3-part Kelly bar	A (m)	B (m)	G (kg)	H _w (m)	T (m)
BK200/368/3/18	8.4	20.4	3,400	7.4	19.0
BK200/368/3/21	9.4	23.4	3,750	7.4	22.0
BK200/368/3/24	10.4	26.4	4,100	7.4	25.0
BK200/368/3/27	11.4	29.4	4,400	6.4	28.0
BK200/368/3/30	12.4	32.4	4,750	5.4	31.0
BK200/368/3/33	13.4	35.4	5,100	4.4	34.0
4-part Kelly bar					
BK200/368/4/28	9.5	31.1	5,050	7.4	29.7
BK200/368/4/32	10.5	35.1	5,550	7.3	33.7
BK200/368/4/36	11.5	39.1	6,000	6.3	37.7
BK200/368/4/40	12.5	43.1	6,500	5.3	41.7
BK200/368/4/48	14.5	51.1	7,500	3.3	49.7
BK200/368/4/52	15.5	55.1	8,000	2.3	53.7

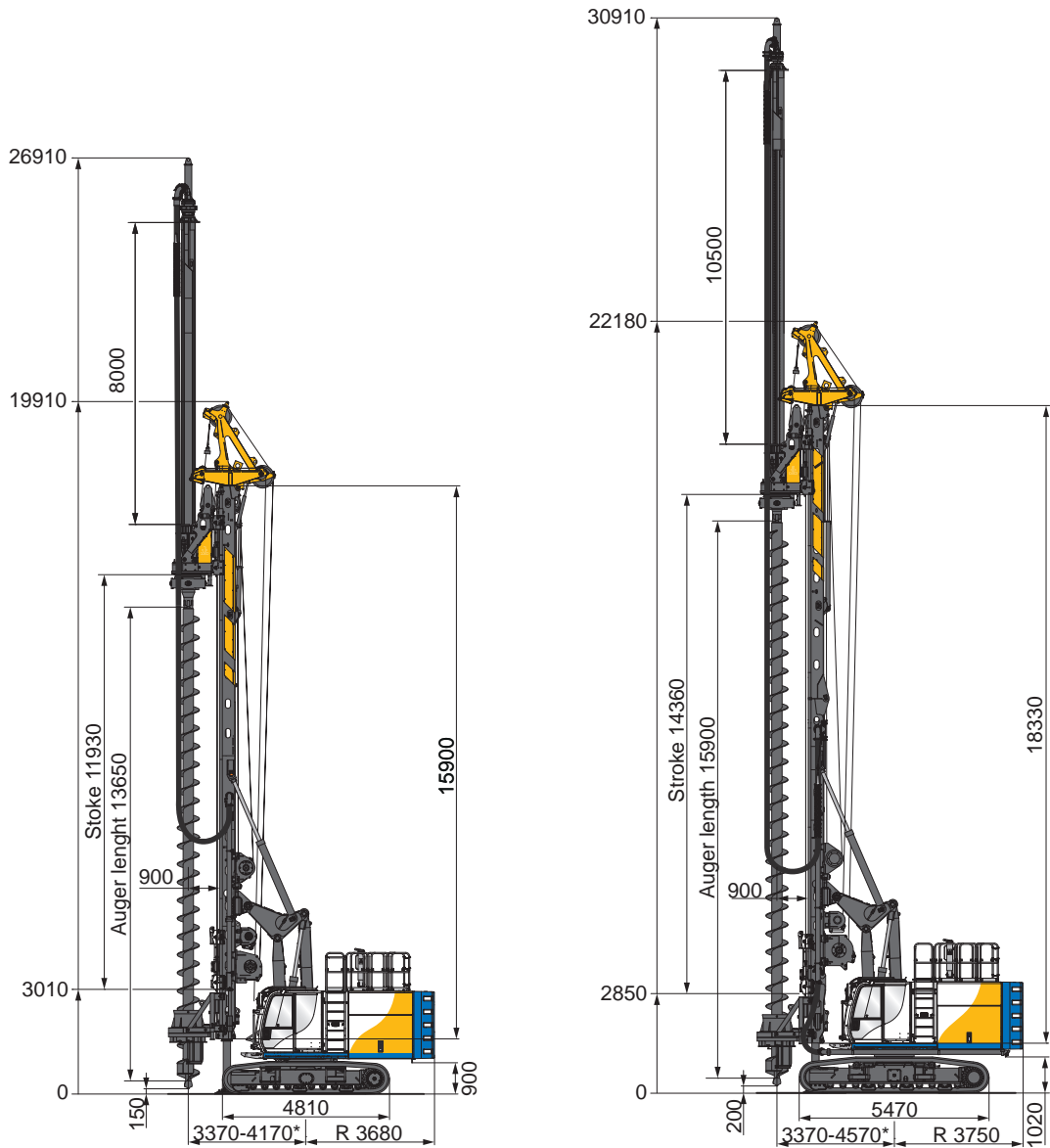
Further drilling depths, diameters and other Kelly types on request.

Kelly drilling with casing oscillator (Version UW 50)



Kelly drilling with casing oscillator (Version UW 60)



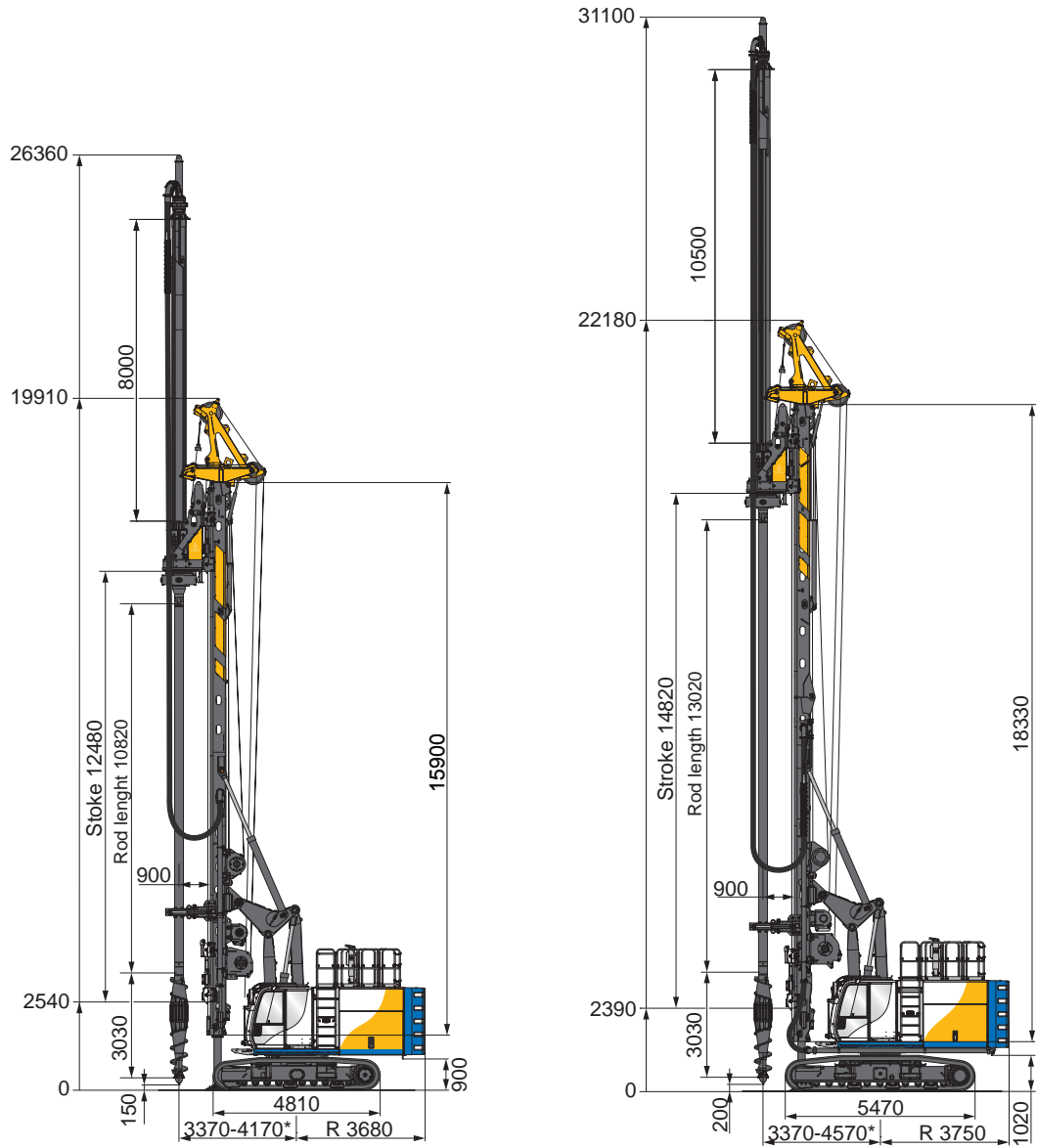


Under carriage	UW 50	UW 60
Unit height	19.9 m	22.2 m
Kelly extension	without / 8.0 m	without / 10.5 m
Max. drilling diameter	900 mm	900 mm
Drilling depth with auger cleaner	12.9 m / 20.9 m**	14.0 m / 24.5 m***
Max. extraction force with main and crowd winch (effective)	540 kN	600 kN
With counterweight	7.6 t	10.0 t

* depending on equipment

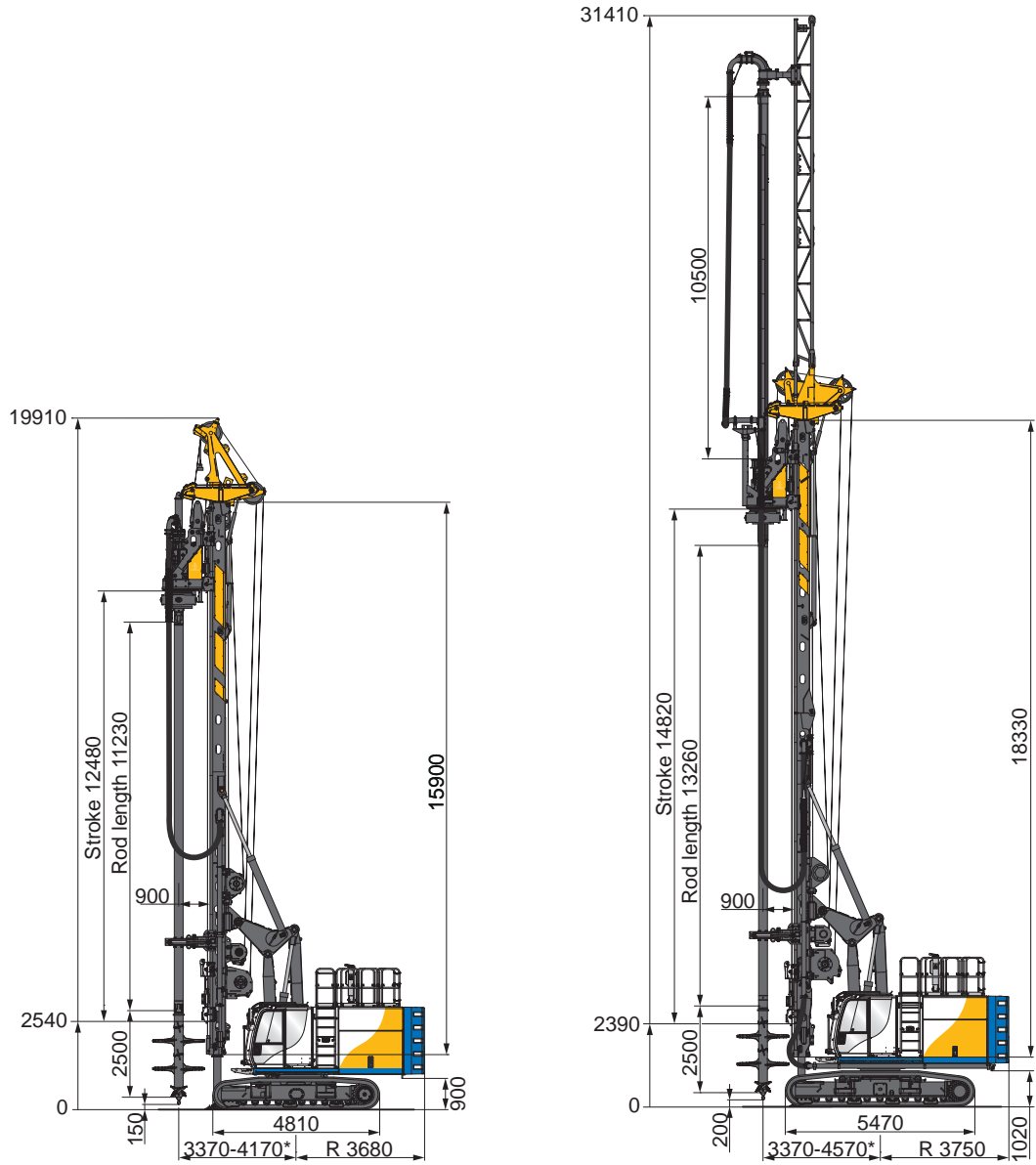
** drilling depth with single section mast - 900 mm

*** drilling depth with single section mast - 200 mm



Under carriage	UW 50	UW 60
Unit height	19.9 m	22.2 m
Kelly extension	without / 8.0 m	without / 10.5 m
Max. drilling diameter	510 mm	510 mm
Max. drilling depth	13.1 m / 21.1 m**	14.4 m / 24.9 m***
Max. extraction force with main and crowd winch (effective)	540 kN	600 kN
With counterweight	7.6 t	10.0 t

* depending on equipment
 ** drilling depth with single section mast - 1000 mm
 *** drilling depth with single section mast - 200 mm

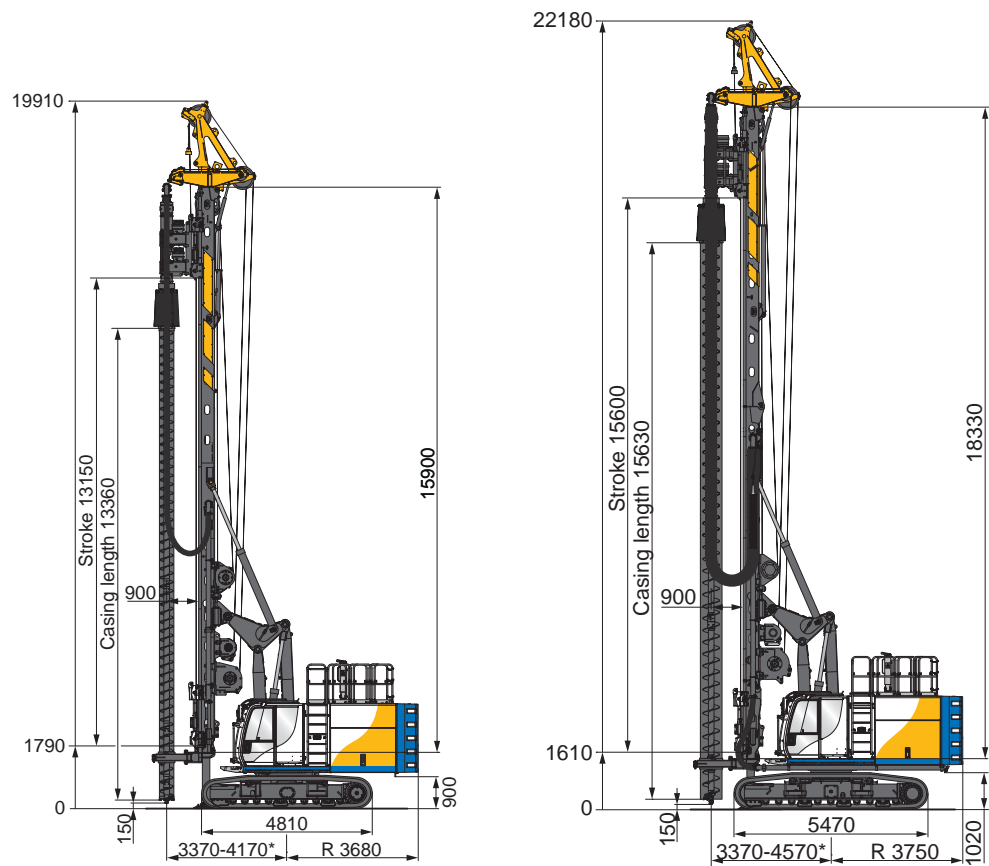


Under carriage	UW 50	UW 60
Unit height	19.9 m	22.2 m
Kelly extension	without	without / 10.5 m***
Max. mixing diameter	1,500 mm	1,500 mm
Max. mixing depth	13.1 m**	14.4 / 24.9 m***
Max. extraction force with main and crowd winch (effective)*	540 kN	600 kN
With counterweight	7.6 t	10.0 t

* depending on equipment

** drilling depth with single section mast - 900 mm

*** drilling depth with single section mast - 200 mm



	DKS 40 / 60	DKS 40 / 60
Under carriage	UW 50	UW 60
Unit height	19.9 m	22.2 m
Torque auger / casing	40 / 60 kNm	40 / 60 kNm
Max. drilling diameter	508 mm	610 mm
Max. drilling depth	13.8 m**	15.3 m***
Max. extraction force with main and crowd winch (effective)*	350 kN	350 kN
With counterweight	7.6 t	10.0 t

* depending on equipment
 ** drilling depth with single section mast - 900 mm
 *** drilling depth with single section mast - 200 mm

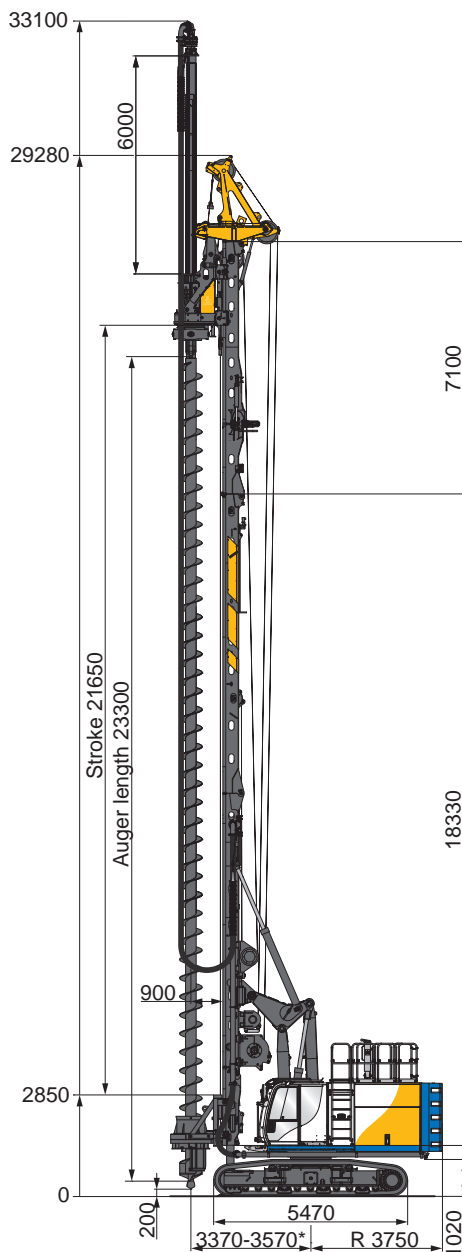


Highlights Extension Package Single Pass Extreme (SPEX)

- Extension of the active feed by 7.1 m due to installation of an upper mast extension
- Further 6 m* drilling depth, achievable due to following up with the Kelly extension
- Active pull down force can be provided on demand by the already installed crowd system
- Max. extraction force through combination of crowd and 2-fold main winch hoist
- Low investment costs due to the extension of the standard equipment
- Compact transport dimensions due to the hydraulically foldable and lockable mast extension
- Optionally, the Remote Control Multi can be used to fold the mast extension
- Can be used in CFA, FDP and SCM mode

Highlight Extension SPEX 4

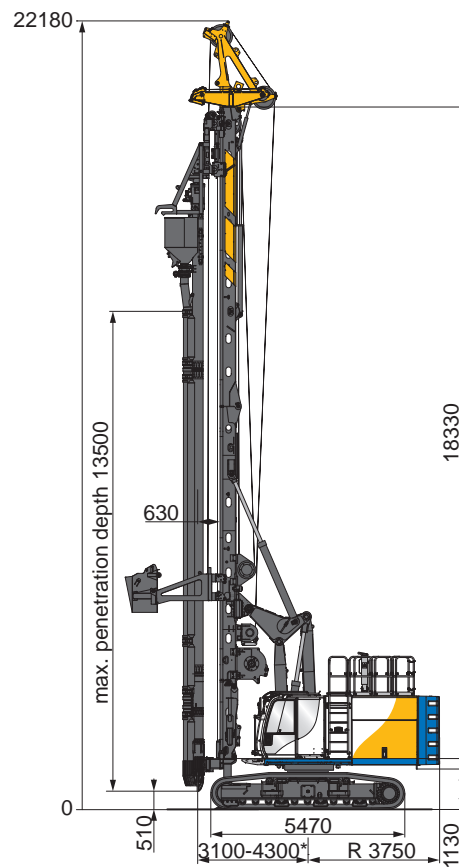
- Significant increase in max. extraction force with crowd and main winch up to 610 kN (effective) due to 4-fold main winch hoist



	CFA drilling	FDP drilling	SCM mixing
Under carriage	UW 60	UW 60	UW 60
Unit height	29.3 m	29.3 m	29.3 m
Kelly extension	without / 4 m / 6 m	without / 6 m	without / 6 m**
Max. drilling / mixing diameter	900 mm / 750 mm / 600 mm	510 mm	1,500 mm
Drilling depth with auger cleaner and casing guidance	21.3 m / 25.3 m / 27.3 m	21.7 m / 27.7 m	21.3 m / 27.3 m
Max. extraction force with main and crowd winch (effective)*	470 kN	470 kN	470 kN
Max. extraction force with main and crowd winch SPEX 4 (effective)*	610 kN	610 kN	610 kN
With counterweight	10.0 t	10.0 t	10.0 t

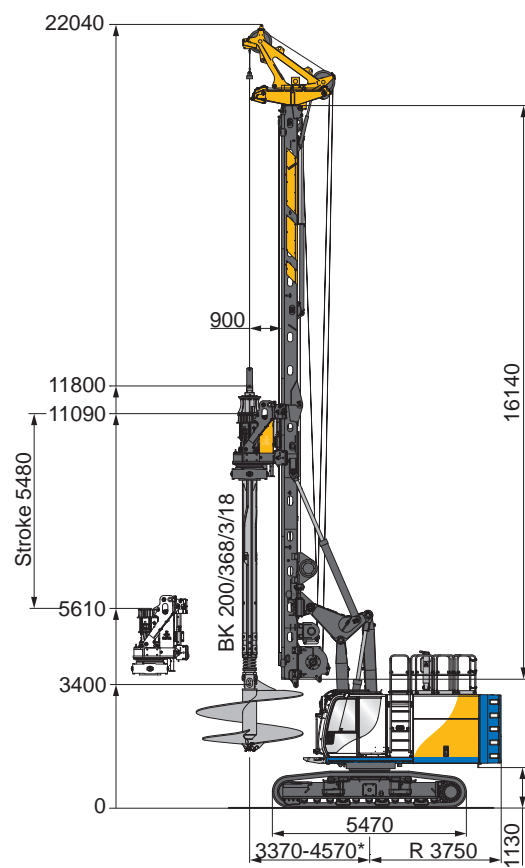
* depending on equipment

** not recommended

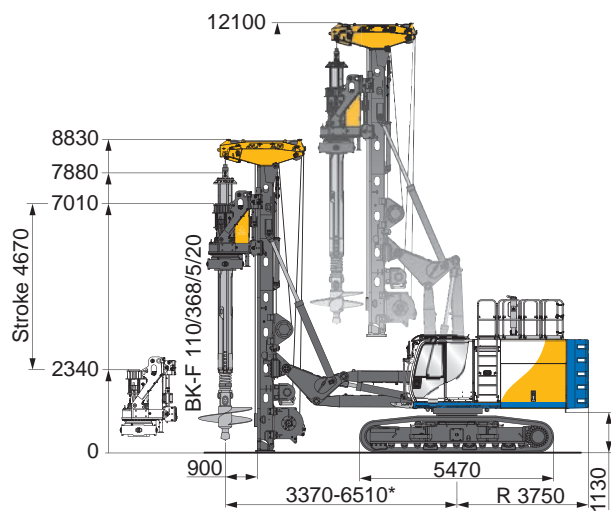


Under carriage	UW 60
Unit height	22.2 m
Max. penetration depth	13.5 m
Pressure with crowd winch (effective)	110 kN
Max. extraction force with main and crowd winch (effective)	260 kN
With counterweight	10.0 t

* depending on equipment



Under carriage	UW 60
Mast	Multi section mast
Unit height	22.0 m
Lower mast extension	without
Max. drilling diameter uncased	3,000 mm
cased	-



Under carriage	UW 60
Mast	Multi section mast
Unit height	8.8 m / 12.1 m
Lower mast extension	without
Max. drilling diameter uncased	1,500 mm
cased	1,200 mm
Max. drilling depth Kelly BK-F 110 / 368 / 5 / 20	19.6 m

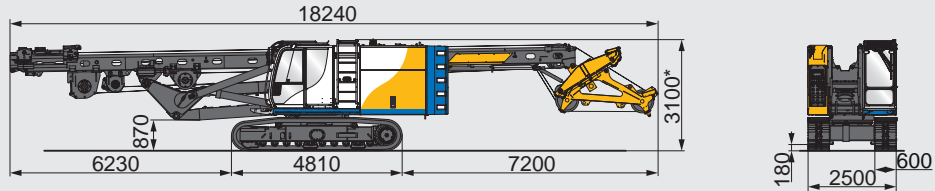
G = Weight
B = Width

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

Version UW 50

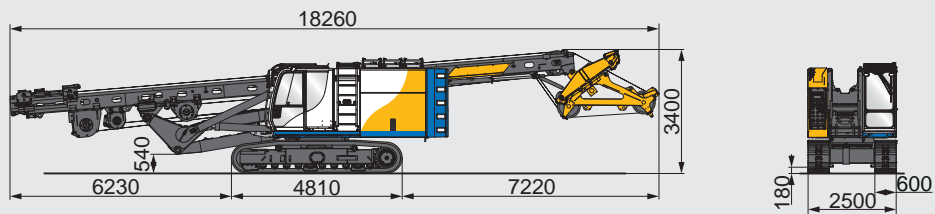
With minimized transport height

G = 50.5 t with 7.6 t counterweight



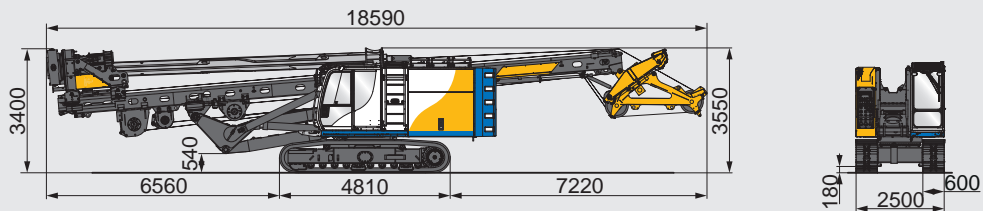
Without rotary drive and Kelly bar

G = 50.5 t with 7.6 t counterweight



With rotary drive and Kelly bar BK 200 / 368 / 3 / 21

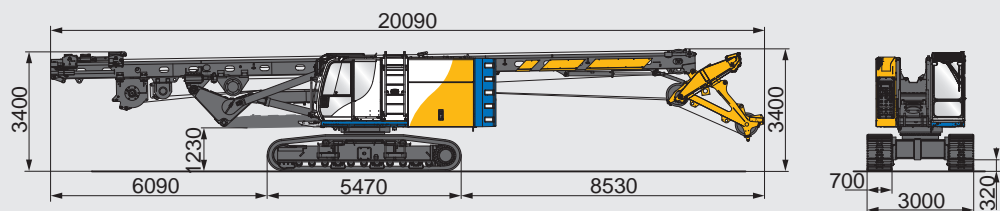
G = 58.9 t with 7.6 t counterweight



Version UW 60 with single section mast

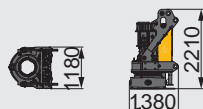
With minimized transport height

G = 57.3 t with 10.0 t counterweight



Rotary Drive

G = 4.3 t (KDK 235 K)
4.5 t (KDK 235 S)



* with guardrail 3,250 mm

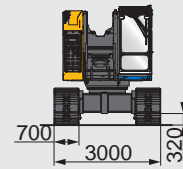
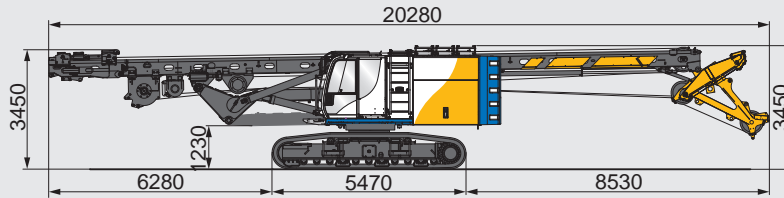
G = Weight
B = Width

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

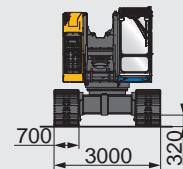
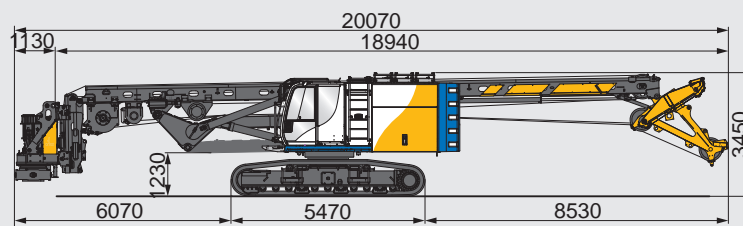
Version UW 60 with multi section mast

With minimized transport height

G = 58.3 t with 10.0 t counterweight



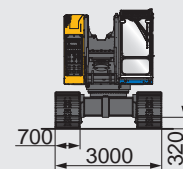
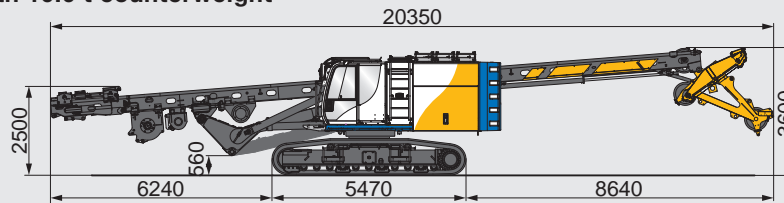
G = 62.8 t with 10.0 t counterweight and rotary drive



Version UW 60

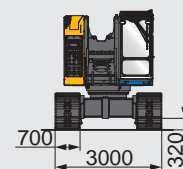
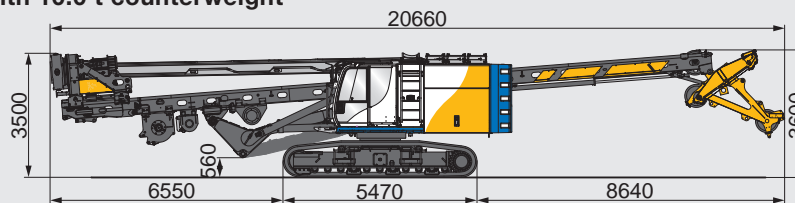
Without rotary drive and Kelly bar

G = 57.3 t with 10.0 t counterweight**



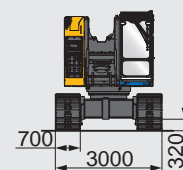
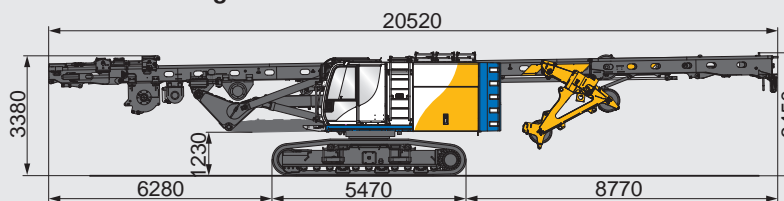
With rotary drive and Kelly bar BK 200 / 368 / 3/24

G = 66.5 t with 10.0 t counterweight**



Transport with Extension Package SPEX

G = 61.0 t with 10.0 t counterweight



** Additional weight Version UW 60 with multi section mast 1.0 t

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BMA-Service@bauer.de**

*toll-free number, where available



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