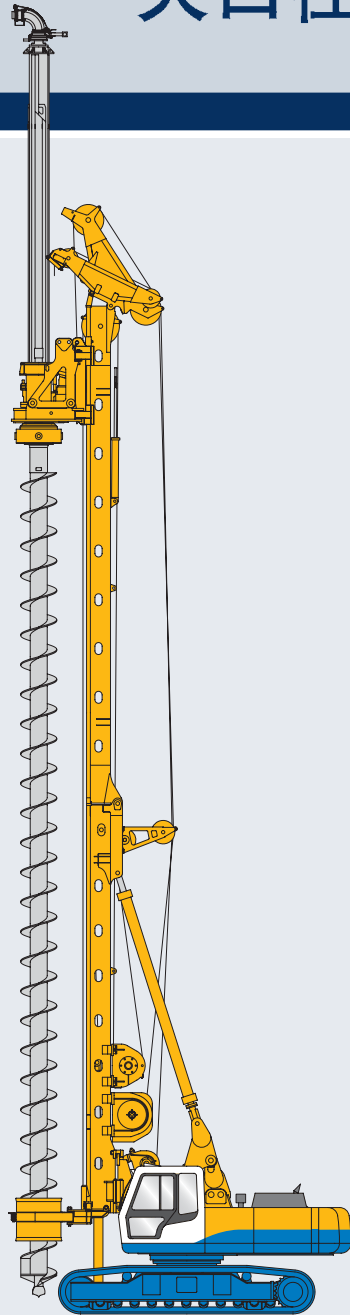


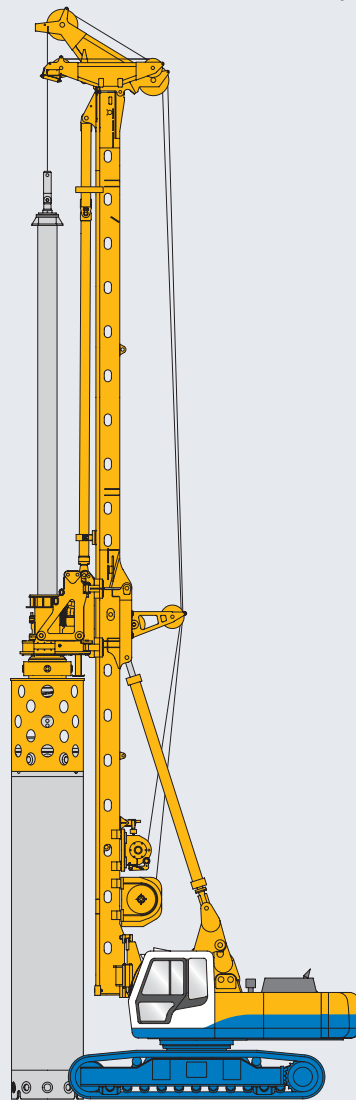
# BG 25C

## Rotary Drilling Rig

## 大口径旋挖钻机



Base Carrier BH 70  
下车 BH 70



## Crowd winch type

## 挤压卷扬式

The **BG 25C** rotary drilling rig has an operating weight of approx. 74 to and a torque of 245 kNm. It is ideally suited for:

- Drilling cased boreholes (installation of casing by rotary drive or optionally by hydraulic oscillator - both are powered by the drilling rig)
- Drilling uncased deep boreholes that are stabilised by drilling fluid
- Drilling boreholes with long hollow stem augers (CFA system), with or without kelly extensions
- Displacement piles

**BG 25C** 大口径旋挖钻机操作重量大约 74 吨，扭矩 245 kNm，非常适合于：

- 全护筒桩（通过动力头自身扭矩下护筒或是经由选配的摇管机下护筒，两者均由钻机直接提供动力）
- 泥浆护壁的深钻孔桩
- 利用中空的长螺旋钻孔桩（CFA 长螺旋系统），可选配凯氏钻杆加长节。
- 挤土桩

## Drilling processes with standard equipment:

Kelly drilling (without casing oscillator)

CFA drilling (pre-equipped with hydraulic and electric installations)

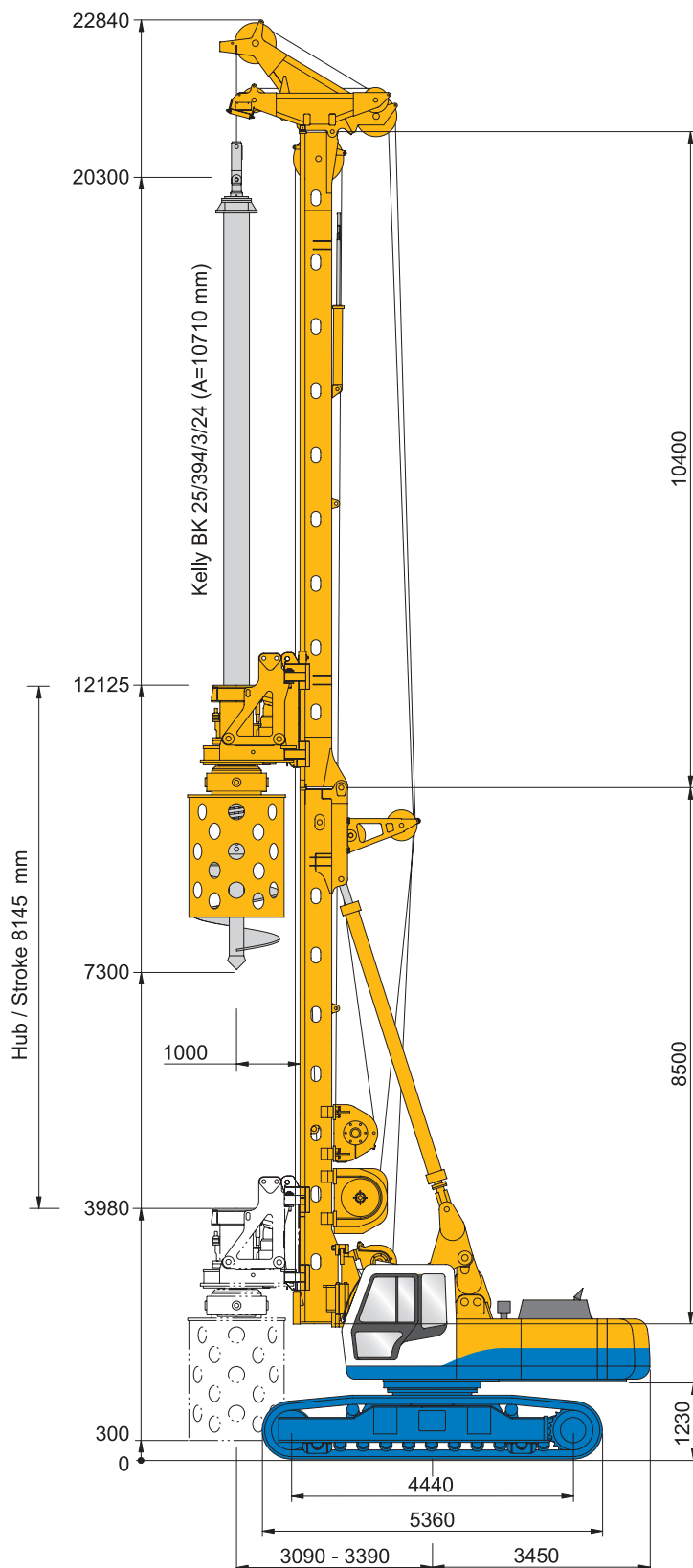
FDP Full-Displacement-Piling (pre-equipped with hydraulic and electric installations)

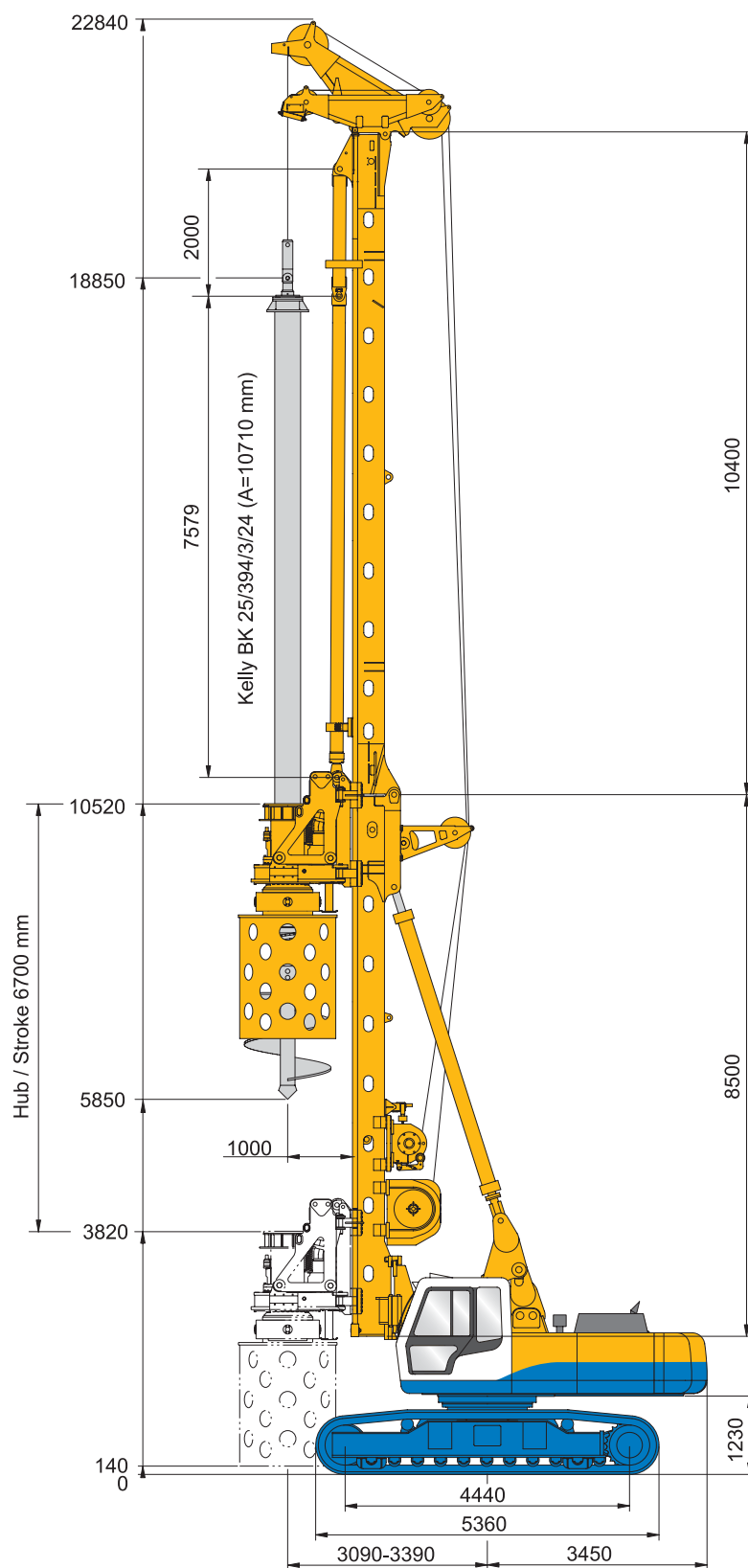
## 标准配备下的钻孔方式：

凯氏钻孔（无摇管机）

长螺旋钻孔（预安装液压和电控装置）

挤土桩（预安装液压和电控装置）





### Drilling processes with standard equipment:

Kelly drilling (without casing oscillator)

CFA drilling (pre-equipped with hydraulic and electric installations)

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凯氏钻孔 (无摇管机)

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挤土桩 (预安装液压和电控装置)

## Technical specifications

## 技术参数

		Crowd Winch 挤压卷扬式	Crowd Cylinder 油缸加压式
<b>Overall height</b>	<b>总高度</b>	22.836 mm	22.836 mm
<b>Operating weight</b> (approx.) (with kelly BK25/394/4/50)	<b>工作重量</b> (大约) (采用钻杆 BK25/394/4/50)	74.000 kg	74.000 kg
<b>Rotary Drive</b>	<b>动力头</b>	<b>KDK 245 K</b>	<b>KDK 245 K</b>
Torque at 320 bar (nominal)	扭矩 (系统压力为 32 MPa 时的理论值)	245 kNm	245 kNm
Speed of rotation (max.)	最大转速	37 U/min (RPM)	37 U/min (RPM)
<b>Crowd system</b>	<b>加压系统</b>		
Crowd pressure / pull (effective)	有效加压压力 / 拉力	260 / 260 kN	200 / 260 kN
Stroke (kelly system)	动力头行程 (凯氏系统)	8.145 mm	6.700 mm
Stroke (CFA system)	动力头行程 (长螺旋系统)	15.800 mm	15.800 mm
Speed (down/up)	速度 (下降 / 提升)	1,8 / 1,8 m/min	1,7 / 2,4 m/min
Fast speed (down/up)	高速 (下降 / 提升)	15,5 / 15,5 m/min	20 / 20 m/min
<b>Main winch</b>	<b>主卷扬</b>		
Winch classification	卷扬等级	M6 / L3 / T5	M6 / L3 / T5
Line pull ( 1st layer) effective/nominal	单绳拉力( 第一层) 有效值 / 理论值	200 kN / 250 kN	200 kN / 250 kN
Rope diameter / Length	钢丝绳直径 / 长度	28 mm / 88 m	28 mm / 88 m
Line speed (max.)	最大提升速度	80 m/min	80 m/min
<b>Auxiliary winch</b>	<b>副卷扬</b>		
Winch classification	卷扬等级	M6 / L3 / T5	M6 / L3 / T5
Line pull ( 1st layer) effective/nominal	单绳拉力( 第一层) 有效值 / 理论值	80 kN / 100 kN	80 kN / 100kN
Rope diameter / Length	钢丝绳直径 / 长度	20 mm / 50 m	20 mm / 50 m
Line speed (max.)	最大提升速度	46 m/min	46 m/min
<b>Mast inclination</b>	<b>钻桅倾斜度</b>		
Backward / forward / lateral	向后 / 向前 / 左右	15° / 5° / 5°	15° / 5° / 5°

## Standard equipment

## 标准配置

- Main winch with hydraulically operated freewheeling
- Main and auxiliary winch with special grooving
- Swivel for main rope
- Hoist limit switch on main and auxiliary winches
- Rotary drive KDK 245 K (single gear drive)
- Transport supports for upper and lower mast sections
- Pivoted anchor points for main and auxiliary ropes

### Measuring and control equipment

- Bauer monitor unit for displaying relevant operation and system data
- Analog display of pump pressures (3 pressure gauges)
- Mast inclination measurement on x/y axes (digital / analog display)
- Automatic vertical alignment of mast
- Depth and load measuring device main winch
- Swivel alignment function on main winch
- Speed measuring device on rotary drive

- 主卷扬采用液压控制的自由轮氏抛勾功能
- 主卷扬及副卷扬采用特殊的绞盘钢丝绳沟槽
- 主钢丝绳配置转动接头
- 主卷扬及副卷扬上配置提升限位开关
- 动力头 KDK 245K (单档位齿轮箱)
- 上部及下部钻桅运输用的支腿
- 主卷扬及副卷扬的枢轴固定锚点

### 量测及控制装置

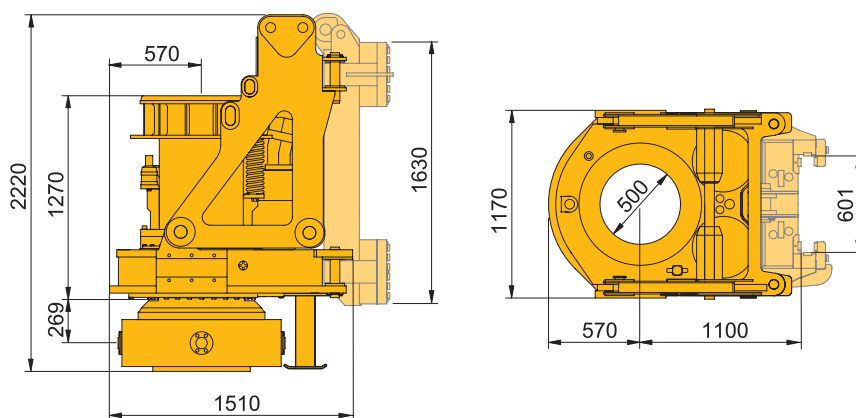
- 宝峨监视器显示相关操作讯息以及系统数据
- 指针式泵压显示 (三个压力表)
- X/Y 轴方向钻桅倾斜度 (数码式 / 指针式显示)
- 钻桅垂直度自动归位装置
- 主卷扬深度及荷载量测
- 主卷扬上旋转归位功能
- 动力头转速测量

## Standard equipment:

- Integrated kelly damping system
- Wear pads exchangeable without removal of rotary drive
- Exchangeable kelly drive adapter
- Exchangeable kelly drive keys
- Cardanic joint
- Quick-release couplers on hydraulic hoses
- 3 selectable modes of operation (refer to diagrams)
- Transport supports
- Slings gear for rotary drive

## 标准配置:

- 整合式凯氏避震系统
- 驱动键条可以在不拆开动力头的情况下更换
- 可更换的钻杆驱动接头
- 可更换的钻杆驱动键条
- 万向接头
- 液压油管快速接头
- 三种可选择的操作模式（见图）
- 运输支架
- 动力头专用的吊钩



Weight without sledge 4,9 to  
动力头重量（不含滑架）

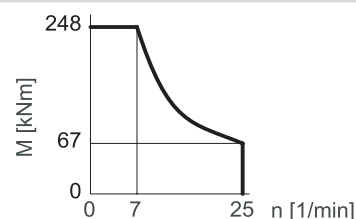
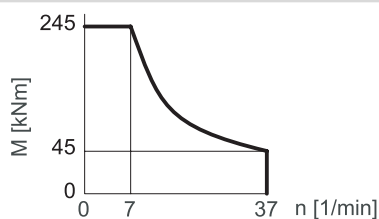
### KDK 245K (Standard)

Single gear rotary drive  
单档位动力头

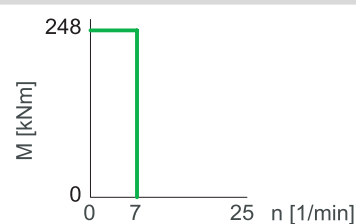
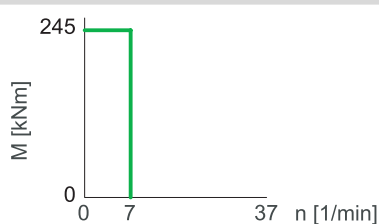
### KDK 248S (Optional)

Multi gear rotary drive  
多档位动力头

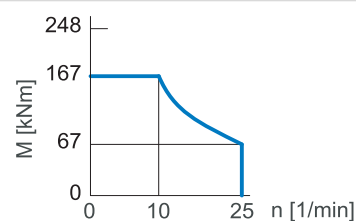
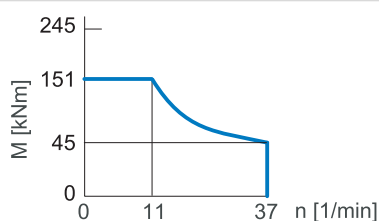
1<sup>st</sup> gear standard mode  
第一档 标准模式



1<sup>st</sup> gear Set up and rock drilling  
第一档 组装及嵌岩

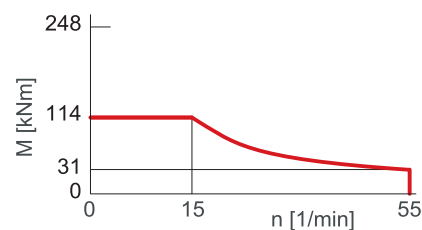


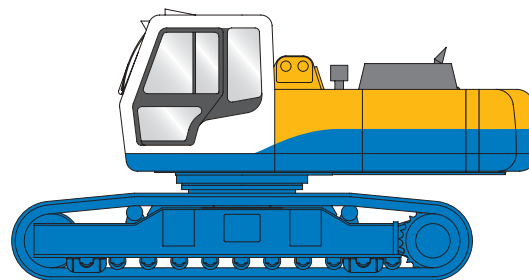
1<sup>st</sup> gear MD reduced  
第一档 MD 低扭矩模式



2<sup>nd</sup> gear standard mode  
第二档 标准模式

not to scale  
图形未按比例





Engine	发动机	Cummins 康明斯 C 8.3 C
Rated output ISO 3046-1	额定功率 ISO 3046-1	194 kW @ 2.200 U/min (rpm)
Engine conforms to Exhaust Emission Standard	发动废气排放符合标准	EEC / 68EC Stage 1 and EPA / CARB TIER 1
Diesel tank	柴油油箱容量	500 l
Ambient air temperature (at full power)	周围温度 (全功率)	up to 不超过 40°C
Sound pressure level in cabin (EN 791, Annex A)	驾驶室内噪音 (EN 791, Annex A)	L <sub>PA</sub> 76 dB(A)
Sound power level (2000/14/EG u. EN 791, Annex A)	全功率下噪音 (2000/14/EG u. EN 791, Annex A)	L <sub>WA</sub> 112 dB(A)
Hydraulic system	液压系统	2-hydraulic circuit system for drilling 钻掘采用双液压回路系统
Hydraulic pressure	液压系统压力	320 bar
Flow rates (main circuits)	流量 (主回路)	2 x 210 l/min
Hydraulic oil tank capacity	液压油箱容量	285 l
Undercarriage (Retractable crawler frames)	下车 (履带可伸缩式结构)	UW 65
Crawler type	履带型式	Typ B 60
Track width (retracted/extended)	履带宽度 (收缩 / 伸展)	2.500 / 3.700 mm
Overall width of crawlers (retracted/extended)	总宽度(收缩 / 伸展)	3.200 / 4.400 mm
Width of triple grouser track shoes	三筋式履带板宽度	700 mm
Overall length of crawlers	履带总长度	5.358 mm
Traction force effective/nominal	牵引力 有效值 / 理论值	410 / 520 kN
Travel speed	行走速度	1,3 km/h

## Standard equipment

## 标准配置

- Removable crawler side frames
- Removable counterweight ( 6,2 tonnes + 6,2 tonnes)
- Transport securing lugs on crawler units
- On-board lighting set (4 spotlights)
- Electric refuelling pump
- Diagnostic panel for hydraulic functions
- Engine diagnostic system
- High-comfort operator's cab
- Pre-equipped for radio and CD player
- Ergonomically designed operator seat
- Protective roof grate (FOPS compliant)
- Air conditioning system
- Wash and wipe at front windows
- Catwalk
- 可拆卸的履带侧架
- 可拆卸的配重 (6.2 吨 + 6.2 吨)
- 履带运输安全固定座
- 搭载照明 (4 组投射照明灯)
- 电动加油泵
- 液压功能检测面板
- 发动机检测系统
- 高度舒适的操作室
- 收音机及 CD 播放器预留安装位置
- 依据人体工程学设计的操作椅
- 起保护作用的顶棚(符合 FOPS 标准)
- 空调系统
- 前窗冲洗及雨刷
- 过道

## Optional equipment

## 可选配置

Additional equipment options		设备其它选项
<b>Base Carrier</b>		<b>主机</b>
CD player		CD 播放器
On-board tool set		随车工具箱
Pre-equipped for pressurized conditioning system		预装的操作室密闭加压式空调系统
Independent cab heater		独立的驾驶室供暖器
<b>Drilling equipment</b>		<b>钻孔设备</b>
Freefall main winch		自由抛钩主卷扬机
Freefall auxiliary winch		自由抛钩副卷扬机
Swivel for auxiliary rope		副卷扬机回转头
Central lubrication system		中央润滑系统
Mast support unit		钻桅底撑单元
Torque amplifier		扭矩放大器
Auger cleaner (for kelly system)		螺旋钻清洁器(凯氏系统)
Pre-equipped for automatic casing drive adapter		预装的全自动护筒驱动器
Upper kelly guide		上部钻杆导向架
Mast access ladder		钻桅检修爬梯
Additional spotlight set		额外增加的投射灯
Oscillator attachment (max. BV 1180 HD-03)		摇管机接口(最大搭配 BV 1180 HD-03 型摇管机)
<b>Measuring and control equipment</b>		<b>检测及控制设备</b>
Recording of operating data		操作数据记录
Remote transmission operating data		无线操作数据传输
Electronic load sensing on main rope		主绳荷载电子传感器
Electronic load sensing on auxiliary rope		辅助绳荷载电子传感器
Overload protection device on main rope		主绳过载保护装置
Depth measuring device on crowd winch		挤压卷扬的深度量测装置
Alternative equipment options		可供选择的配置选项
Rotary drive KDK 248 S (multi-gear)		动力头 KDK 248S (多档位)
Rotary drive KDK 245 K (c/w spin-off mode)		动力头 KDK 245K (搭配甩土装置)

## Transport data 运输参数

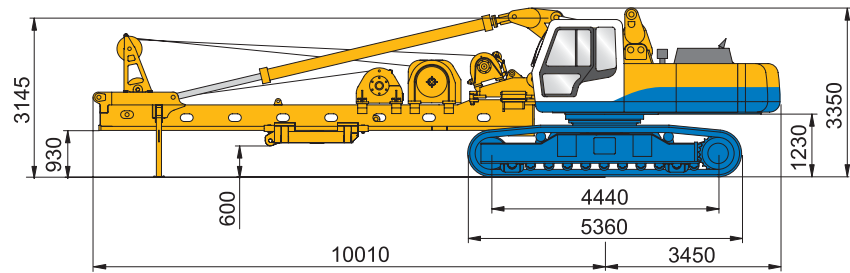
## Transport data 运输参数

Crowd winch  
挤压卷扬 **G = 53.8 to**

Crowd winch  
挤压卷扬 **G = 53.8 to**

Crowd cylinder  
挤压油缸 **G = 52 to**

Crowd cylinder  
挤压油缸 **G = 52 to**

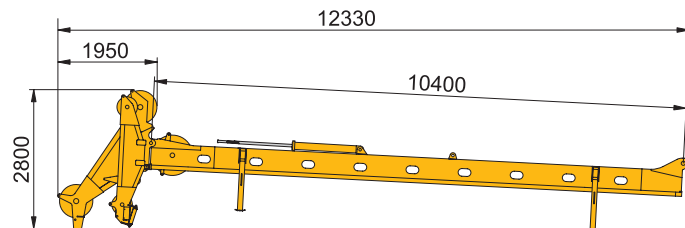


Crowd winch  
挤压卷扬

**G = 4.1 to**  
**B = 1.700 mm**

Crowd winch  
挤压卷扬

**G = 4.1 to**  
**B = 1.700 mm**

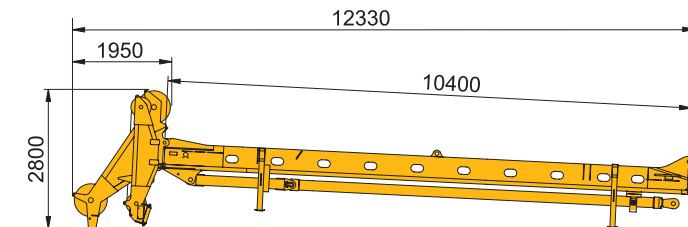


Crowd cylinder  
挤压油缸

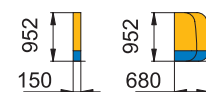
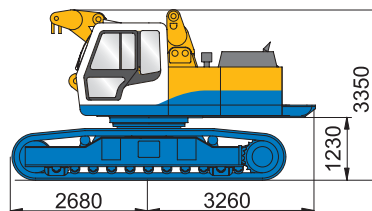
**G = 5 to**  
**B = 1.700 mm**

Crowd cylinder  
挤压油缸

**G = 5 to**  
**B = 1.700 mm**



**G = 28 to**



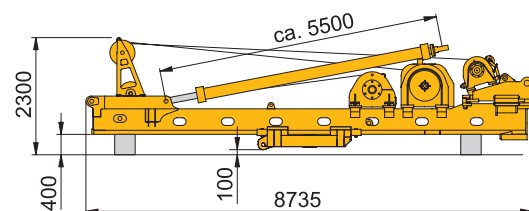
**G = 2 x 6,2 to**

Crowd winch  
挤压卷扬 **G = 13.4 to (B = 2,400 mm)**

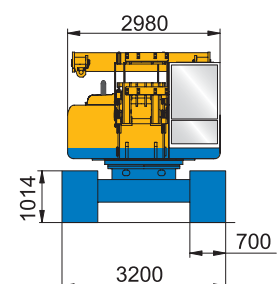
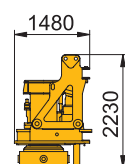
Crowd winch  
挤压卷扬 **G = 13.4 to (B = 2,400 mm)**

Crowd cylinder  
挤压油缸 **G = 11.6 to (B = 2,400 mm)**

Crowd cylinder  
挤压油缸 **G = 11.6 to (B = 2,400 mm)**



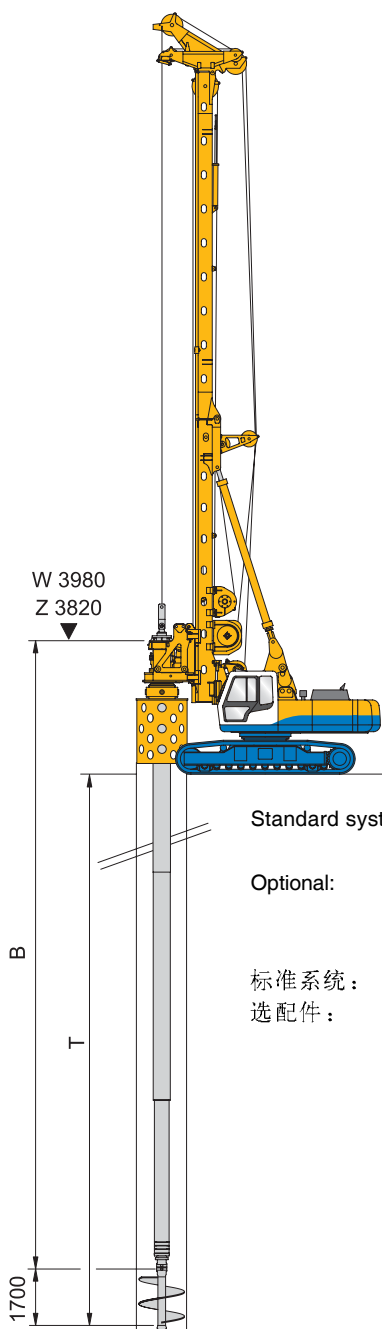
**G = 5 to**





## Kelly drilling system

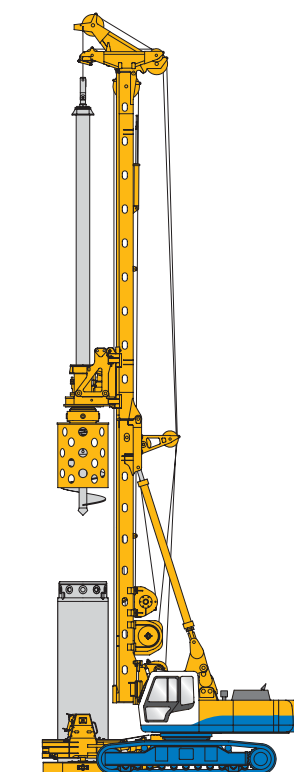
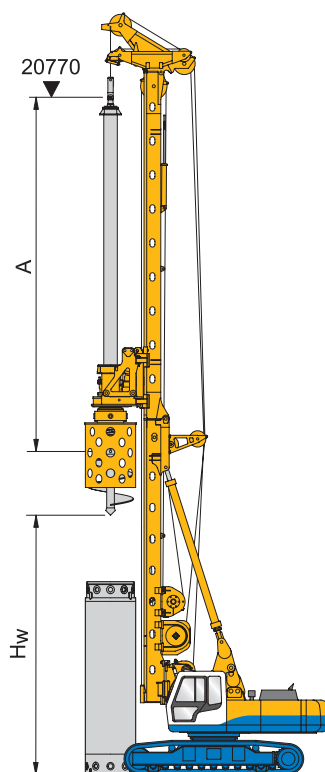
## 凯式钻杆钻掘系统



Standard system: Uncased drilling or installation of casing with rotary drive

Optional: Installation of casing with hydraulic oscillator attached to the drilling rig

标准系统：泥浆护壁钻孔桩或用动力头下护筒  
选配件：采用连结在钻机上的液压摇管机下护筒



## Optional equipment:

选配设备：

Attachment of hydraulic oscillator

搭配液压摇管机

BV 1180 HD-03

## Drilling depths

## 钻深表

				Crowd winch 挤压卷扬		Crowd cylinder 挤压油缸	
Type of Kelly bar 钻杆型号	A (m/ 米)	B (m/ 米)	Weight 重量 (kg/ 公 斤)	Hw (m/ 米)	T (m/ 米)	Hw (m/ 米)	T (m/ 米)
BK 25/394/3/24		27,20		5,85			<b>24,95</b>
BK 25/394/3/27	10,71	30,20	4.700	5,85	<b>25,10</b>	7,30	<b>27,95</b>
BK 25/394/3/30	11,71	33,20	5.120	5,76	<b>28,10</b>	6,76	<b>30,95</b>
BK 25/394/3/36	12,71	39,20	5.530	3,76	<b>31,10</b>	5,76	<b>36,95</b>
BK 25/394/4/40	14,71	43,47	6.350	5,76	<b>37,10</b>	3,76	<b>41,20</b>
BK 25/394/4/50	12,71	53,67	7.730	3,86	<b>41,35</b>	5,76	<b>51,62</b>
BK 25/394/4/56	15,21	59,47	9.150	1,76	<b>51,77</b>	3,86	<b>57,20</b>
	16,71		10.050		<b>57,35</b>	1,76	

## Drilling diameter

## 钻孔直径

Uncased	泥浆护壁钻孔桩	1.700 mm	1.900 mm
Cased	全护筒钻孔桩	1.400 mm	1.600 mm

## Length of casing sections

## 单节护筒长度

without casing oscillator	无摇管机	Hw - 0,5 m	Hw - 0,5 m
with casing oscillator	有摇管机	Hw - 1,5 m	Hw - 1,5 m

For further details on the acquisition of drilling data please refer to "Kelly Bars 905.518.1"

如需更多钻孔信息参见  
“凯式钻杆 905.518.1”

## CFA - Drilling system

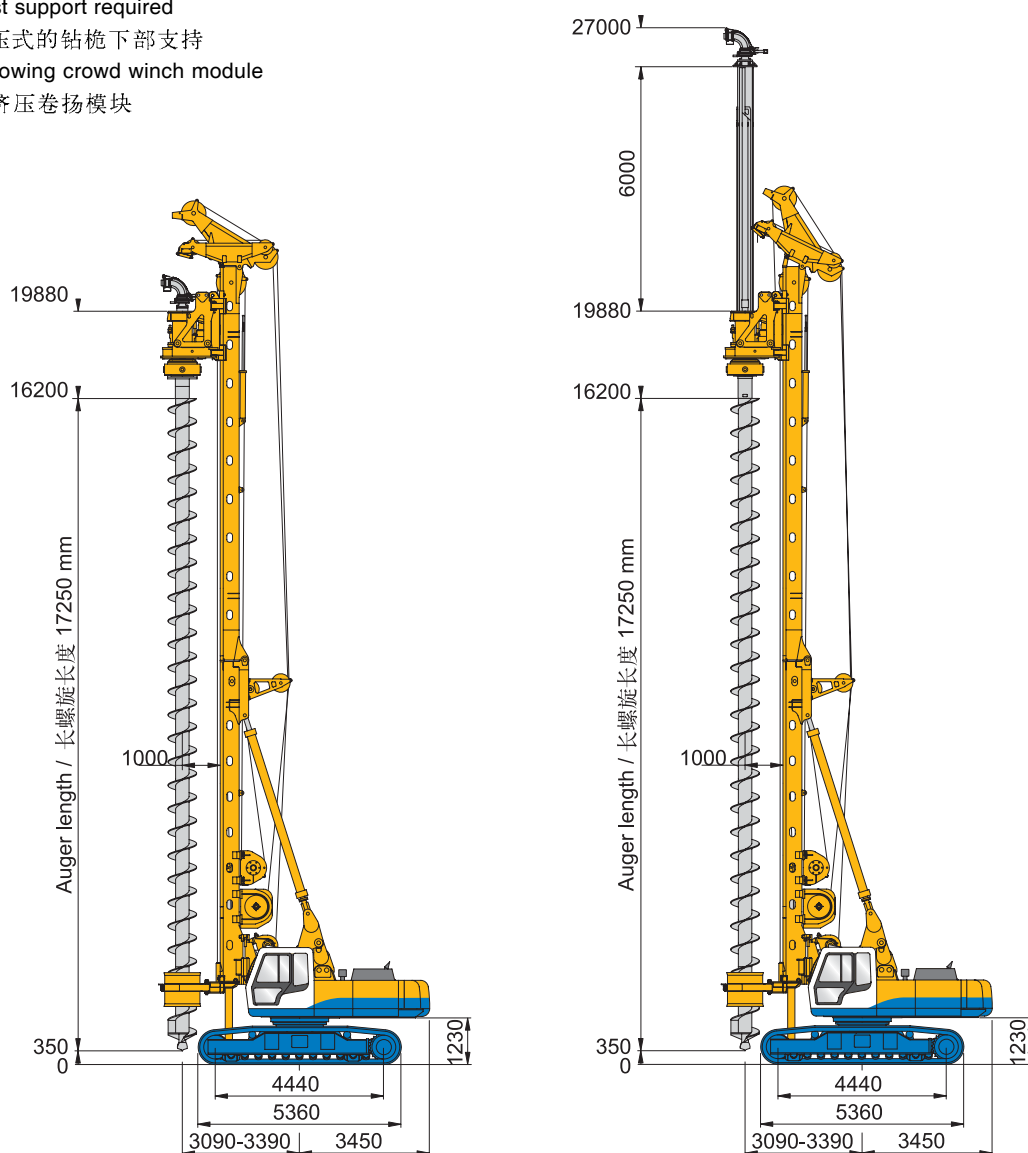
## 长螺旋钻掘系统

hydraulic mast support required

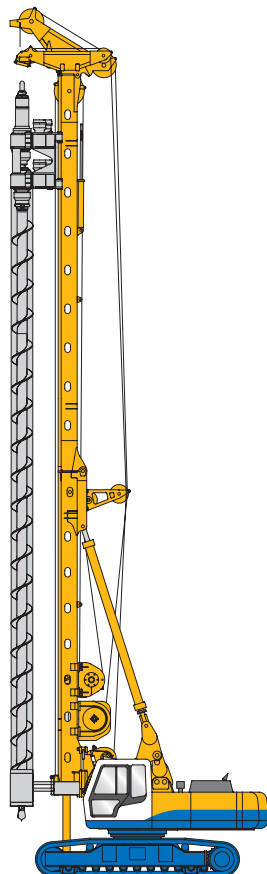
必须搭配液压式的钻桅下部支持

Illustration showing crowd winch module

图片显示为挤压卷扬模块



Crowd system 加压系统	Crowd winch 挤压卷扬		Crowd Cylinder 挤压油缸	
Kelly extension 凯氏延伸杆	—	6,0 m	—	6,0 m
Drilling depth with auger cleaner 搭配刮泥器的的钻孔深度	14,20 m	20,20 m	14,20 m	20,20 m
Drilling depth without auger cleaner 没有刮泥器的钻孔深度	15,20 m	21,20 m	15,20 m	21,20 m
Max. drilling diameter 最大成孔直径	800 mm	800 mm	800 mm	800 mm
Max. extraction force (sheaved) 最大提升力 (透过滑轮组)	260 kN	260 kN	400 kN	400 kN
Max. crowd force 最大加压力	260 kN + Auger 260 千牛 + 长螺旋自 重		Weight of rotary drive + Auger 动力头自重 + 长螺旋自重	
Continuous flight auger length L (incl. starter auger) 长螺旋杆长度 “L” (包含螺旋钻头)	17,25 m	17,25 m	17,20 m	17,20 m

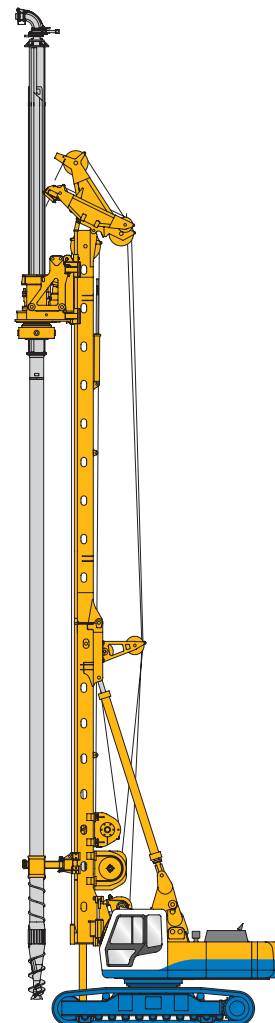
**VdW**

Front-Of-Wall drilling (FOW)  
墙前桩钻掘 (FOW)

Diameter  
直径 406 - 610 mm

Depth (approx.)  
深度 (大约) 14 m

Rotary drive  
动力头 VDW 6035

**FDP**

Full displacement piling  
挤土桩

Diameter  
直径 410 - 510 mm

Depth (approx.)  
深度 (大约) 15 m

Depth with extension  
搭配延伸杆后深度 21 m

Rotary drive  
动力头 KDK 245 K



1. 宝峨天津工厂全体员工
2. 宝峨天津工厂组装车间
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样本中可能有打印错误



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