

As technology continues to improve, we are unable to inform you of the change of our products in time. We apologize for any inconvenience caused!

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**XCMG FOR YOUR SUCCESS**



**XCMG FOUNDATION CONSTRUCTION MACHINERY BUSINESS DIVISION**

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## Highlights Introduction

### ▼01

As a multifunctional machine, XR360E can realize quick function switching such as crowd cylinder, crowd winch, CFA and dual rotary drive to meet different construction needs.

### ▼02

The multi-gear rotary drive and main winch with single-rope can improve the working performance by 20% and ensure higher working efficiency.

### ▼03

The intelligent control system can realize functions such as automatic adjustment and display of mast perpendicularity, automatic rotation, spin-off, lifting & concrete pouring and pile type display, etc. The bus panel design is adopted to prevent misoperation.

### ▼04

It adopts H-form hydraulic retractable crawler chassis dedicated for rotary drilling rigs and large diameter slewing bearing, which ensures super stability and transportation convenience.

XR360E rotary drilling rig is a large tonnage product of new generation E series which increases the power and system flow on the basis of mature XR360 to improve working efficiency. It is widely used in the hole-forming operations of cast-in-place concrete piles in the construction of roads, railways, bridges, large venues and other projects, and it is especially suitable for industrial and civil buildings. It adopts mechanical interlocking or friction Kelly bars to work with rotary buckets such as sand drilling bucket, tubular drill and short spiral drill. It can also carry CFA or dual rotary drive for construction.

### ▼05

Optimally designed double jib luffing mechanism and optimized hinge point position can ensure construction stability and transportation convenience.

### ▼06

The main and auxiliary winches both adopt single-rope technology. The service life of the wire rope is 2~4 times longer than that of the multi-row rope and the cost is lower.

### ▼07

The hydraulic system adopts load sensing technology and unites total power control and limit power control technologies, making the hydraulic system more efficient and energy-saving. It adopts independent radiator system with compact structure and high heat dissipation efficiency.

### ▼08

It adopts Volvo electronically controlled turbocharged engine with more power and lower fuel consumption.



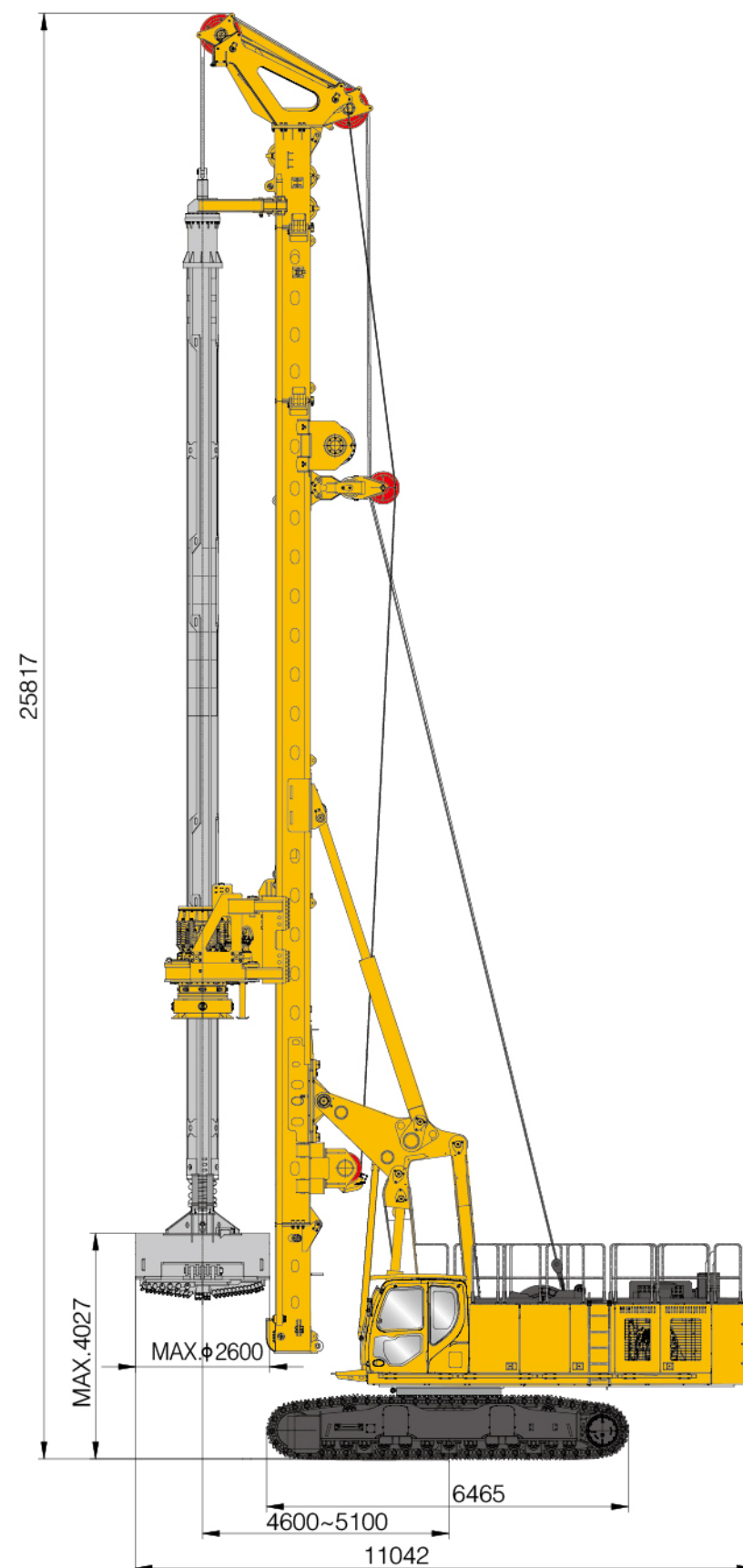
## Dimension & Configuration

### Standard

- Self-righting
- Rotation angle display
- Rotation sound-light alarm
- Security monitoring of the tail
- Luffing limit protection
- Mast limit (front and back, left and right)
- Manual/automatic adjustment of mast perpendicularity
- Mast perpendicularity detection
- Cathead cylinder
- Display of rotary drive torque
- Display of rotary drive speed
- Rock-entering mode of rotary drive
- Automatic forward & reverse spin-off
- Casing driving
- Crowd cylinder
- Fuel self-priming pump
- Main winch floating
- Main winch height limit
- Main winch infrared monitoring
- Real-time detection of drilling depth
- Main winch lifting force detection
- Gradiometer
- Radio
- Air conditioner
- Oil pressure detection
- Intelligent fault detection
- Filter clogging alarm
- Scram protection
- PLC intelligent control module
- Central lubrication

### Optional

- High-speed spin-off
- Crowd winch
- Torque multiplier



## Main Technical Parameters

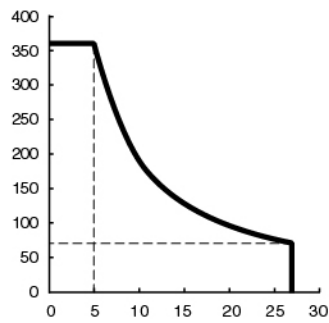
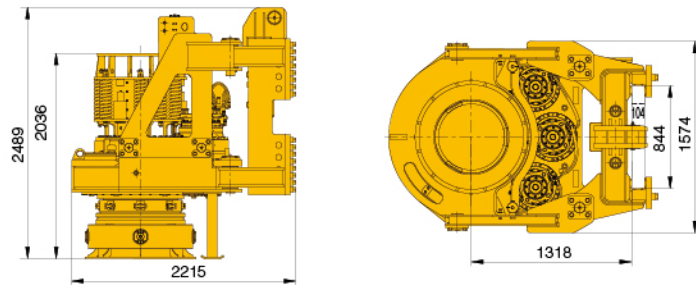
Working height	27.5 m	90 ft
Overall operating weight (standard)	115 t (without drilling tools)	126.7 ton(US)
Max. drilling diameter	Φ2600 mm/φ2300 mm*	102.4 in/90.6 in*
Max. drilling depth	103 m	338 ft
<b>Dimensions</b>		
Working condition	10870×4900×25820 mm	428×193×1017 in
Transport condition	20650×3500×3845 mm	813×138×152 in
<b>Engine</b>		
Rated power	345 kW/1900 r/min	462 hp/1900 rpm
Emission standard	EU III	EU III
Fuel tank capacity	800 L	211.3 US gal
<b>Rotary drive</b>		
Rated output torque	360 kNm	265348 lbf·ft
Rotary speed	6-27 r/min	6-27 rpm
<b>Crowd cylinder</b>		
Max. crowd force push/pull	300 kN/350 kN	67443 lbf/78684 lbf
Max. stroke	6 m	20 ft
<b>Crowd winch (optional)</b>		
Max. crowd force push/pull	300 kN/350 kN	74187 lbf/78684 lbf
Max. stroke	10 m/16 m	33 ft/53 ft
<b>Main winch</b>		
Max. pulling force	370 kN	83180 lbf
Max. line speed	60 m/min	197 ft/min
<b>Auxiliary winch</b>		
Max. pulling force	100 kN	22481 lbf
Max. line speed	41 m/min	134 ft/min
<b>Mast inclination</b>		
Lateral/forward/backward	±4°/5°/15°	±4°/5°/15°
<b>Undercarriage</b>		
Max. travel speed of overall unit	1.6 km/h	1.0 mph
Min. ground clearance	450 mm	17.7 in
Width of triple grouser track shoes	800 mm	31.5 in
Width of crawlers retracted/extended	3500-4900 mm	138 -193 in
Max. climbable gradient of overall unit	35%	35%
Ground pressure	125 kPa	18 psi
<b>Hydraulic system</b>		
Hydraulic oil tank capacity	1000 L	264.2 US gal
Working pressure	33 MPa	4786 psi

Note: Parameters with "\*" refer to the ones of crowd winch configuration.

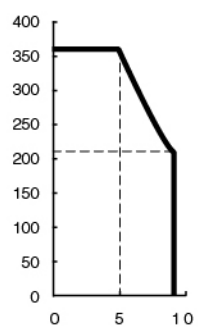


## Rotary Drive

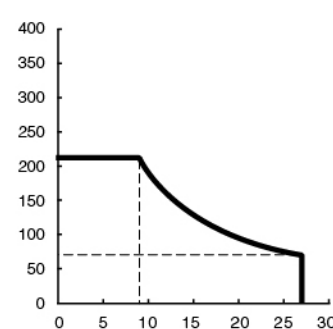
It adopts vertical pin connected power box and bracket, which is more reliable and convenient to assembly and disassembly. The lower cover of the box body has double-layer sealing with good sealing performance and long service life. Casing driving and torque multiplier can be chosen to improve the casing capacity of the rig.



Working mode



Rock drilling mode



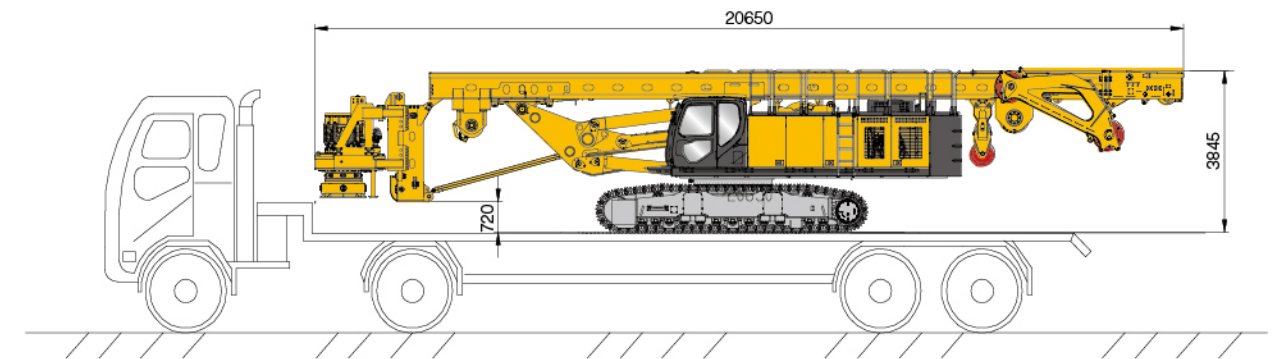
Efficiency mode

## Kelly Bar

Interlocking Kelly bar	Weight		Drilling depth		Height above ground of drilling bit		Casing length (FYI)	
Φ530-4×17.0 m	15900 kg	35053 lb	61 m	199 ft	3 m	9.8 ft	2 m	6.6 ft
Φ530-4×18.0 m	16765 kg	36960 lb	65 m	213 ft	2 m	6.6 ft	1 m	3.3 ft
Φ530-4×19.0 m	17630 kg	38866 lb	69 m	226 ft	1 m	3.3 ft	/	/
Friction Kelly bar	Weight		Drilling depth		Height above ground of drilling bit		Casing length (FYI)	
Φ530-5×17.0 m	15300 kg	33730 lb	77 m	252 ft	3 m	9.8 ft	2 m	6.6 ft
Φ530-5×18.0 m	16200 kg	35714 lb	82 m	268 ft	2 m	6.6 ft	1 m	3.3 ft
Φ530-5×19.0 m	17100 kg	37698 lb	87 m	284 ft	1 m	3.3 ft	/	/
Φ530-6×17.0 m	16740 kg	36904 lb	91 m	298 ft	3 m	9.8 ft	2 m	6.6 ft
Φ530-6×18.0 m	17610 kg	38822 lb	97 m	317 ft	2 m	6.6 ft	1 m	3.3 ft

## Transportation Plan

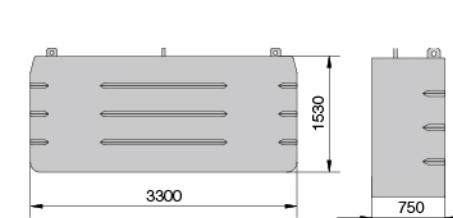
### Whole Machine Transportation



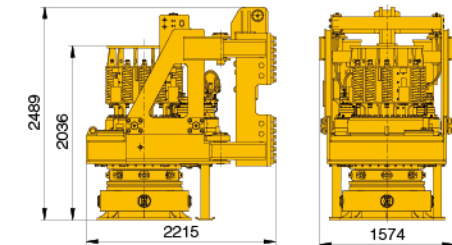
Transport weight: 84.3 t (without Kelly bar or drilling tools)  
Transport width: 3500 mm

### Disassembly Transportation

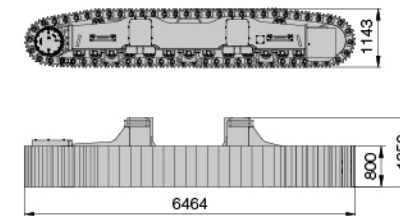
1. Disassemble the Kelly bar and drilling bit
2. Disassemble the counterweight
3. Disassemble the rotary drive
4. Disassemble left and right carling and track assembly
5. Hoist the detached parts and the upper part of the machine onto the trailer and fix them securely



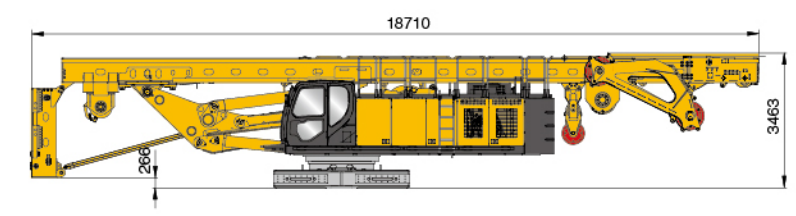
Weight of counterweight: 9 t



Weight of rotary drive assembly: 7.9 t



Weight of carling and track: 10 t



Weight: 55.3 t; Transport width: 3500 mm

## Construction Cases



XR360E in Anhui



XR360E in Hefei



XR360E in Xuzhou

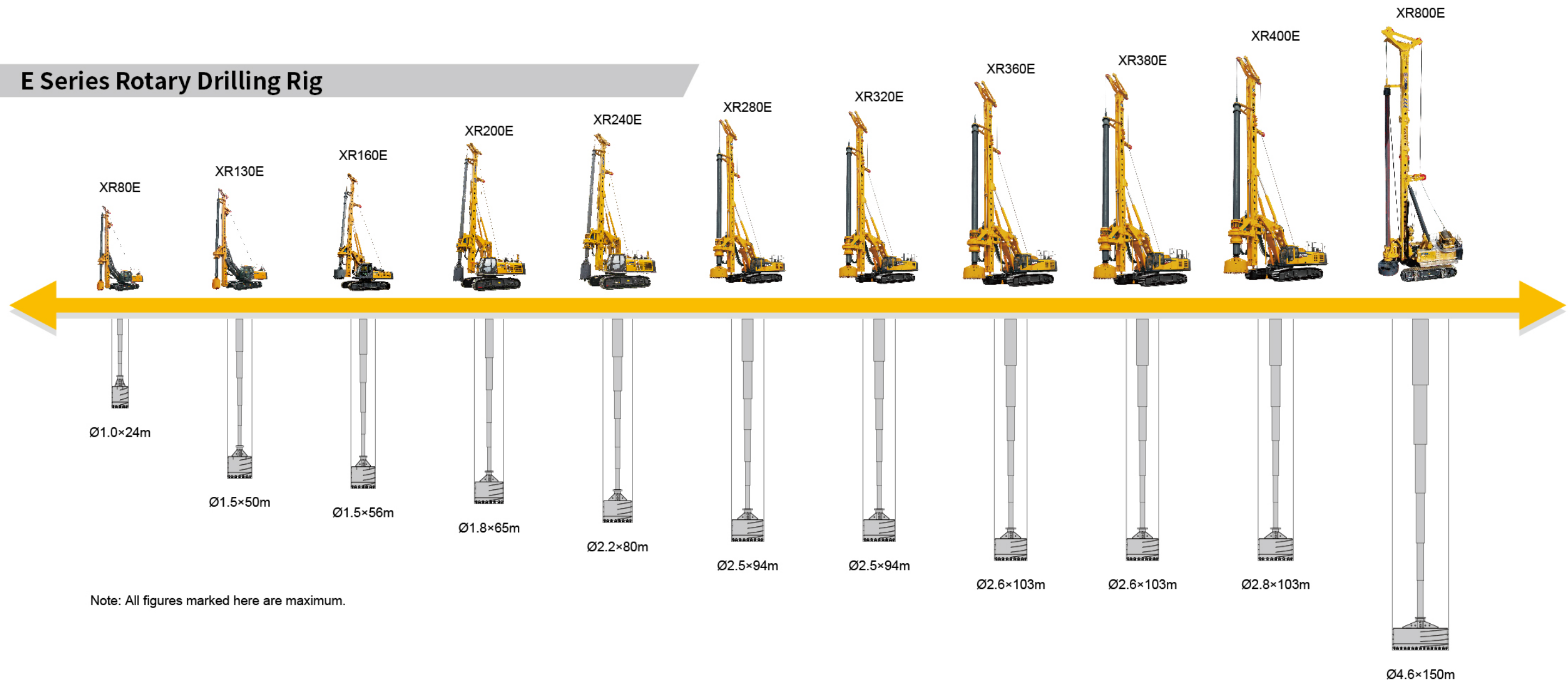


XR360E in Shenyang



XR360E in Dalian

## E Series Rotary Drilling Rig





## Drilling Tools

**Main application: gravel cobble and weathered rock**



Double-bottom double-door bucket with cutting teeth



Double-bottom single-door bucket with cutting teeth

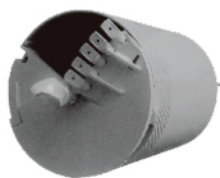


Double cut bucket with cutting teeth



Double cut single spiral auger with cutting teeth

**Main application: soil, sand and ooze**



Double-bottom single-door soil bucket



Double-bottom single-door soil bucket

**Main application: hard bed rock and boulder formations**



Core barrel with cutting teeth



Core barrel with cone bit

**Main application: clay, soil, dry construction method**



Split type drill bit



Double cut single spiral soil auger



Single-bottom double-door soil bucket

**Main application: cleaning up the sediment at the bottom of the hole**



Cleaning bucket

**Main application: cobble, strong weathered rock, Tundra, broken rock**



Single cut single spiral auger with cutting teeth



Double cut single spiral auger with cutting teeth

**Main application: soil, sand, soft rock**

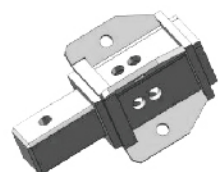


Belling bucket for soil



Belling bucket for rock

**Others**



Kelly box adapter



Extension rod



Casing



Betek tooth