

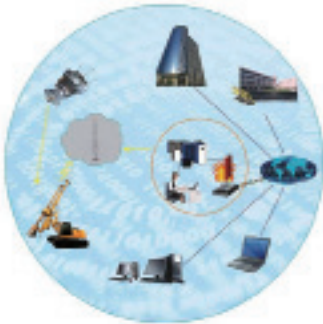
Rotary Drilling Rig

TR280DI



Electric system

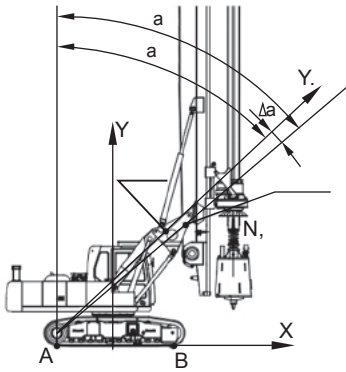
- Wireless transmission system and GPS remote service



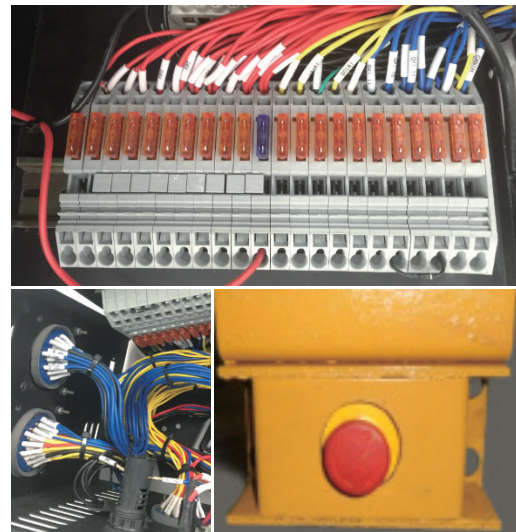
- Construction monitoring system



- The stability of drilling rig monitoring system

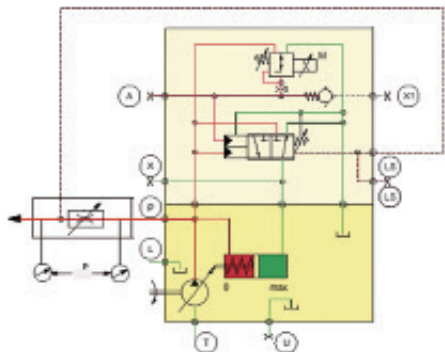


- Emergency switch(optional) and concentration of wiring harness

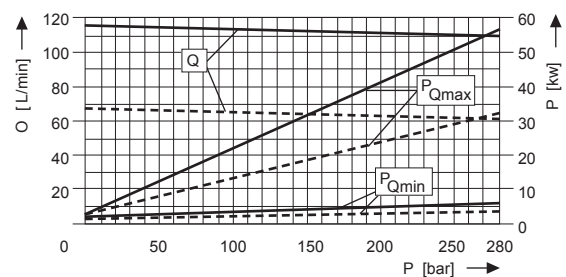


Hydraulic System

- Caterpillar's main hydraulic system
- The main pump negative flow control system
- The auxiliary pump load sensitive control system



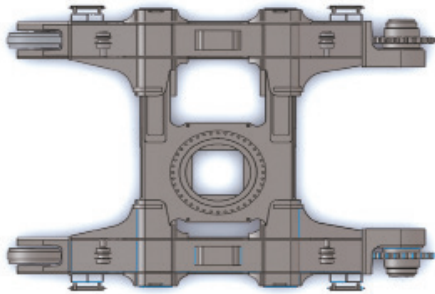
- Main hydraulic tank and auxiliary hydraulic oil tank, the hydraulic oil cooling and cleaning easier



- The main winch hydraulic oil confluence technology improve the winch speed by 50%
- Crowd force stepless adjustment improve construction efficiency
- The rotary drive self-adaptive drilling system and high speed spin-off system improve drilling efficiency

Mechanical System

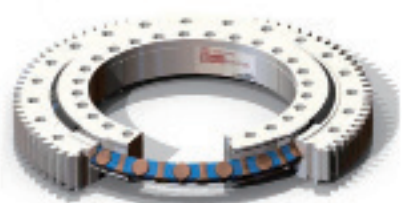
- Kelly drilling and CFA drilling
- Caterpillar Undercarriage



- Caterpillar Undercarriage structure and the mast structure, all materials are special high-strength steel



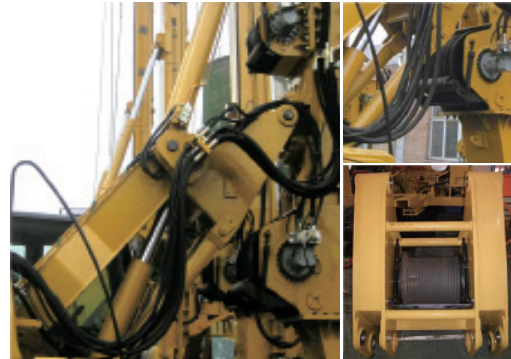
- Cross Roller Bearing improves the drilling accuracy significantly



- Reducer, motor, pump, valve configuration of the international first-class brand



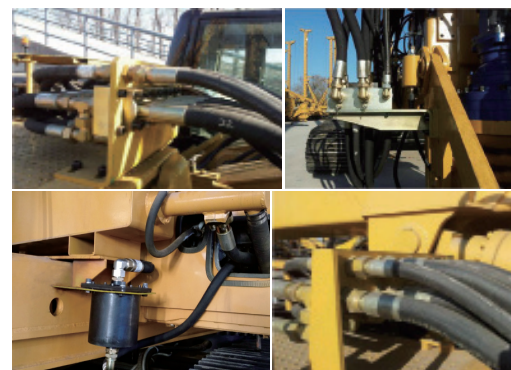
- The broken line reel technology and the winch patent technology make the service life of wire rope improve greatly



- Rotary Drive multi-stage damping structure improves the borehole verticality and structural life



- Reasonable layout, repair, maintenance are convenient



Dimensions

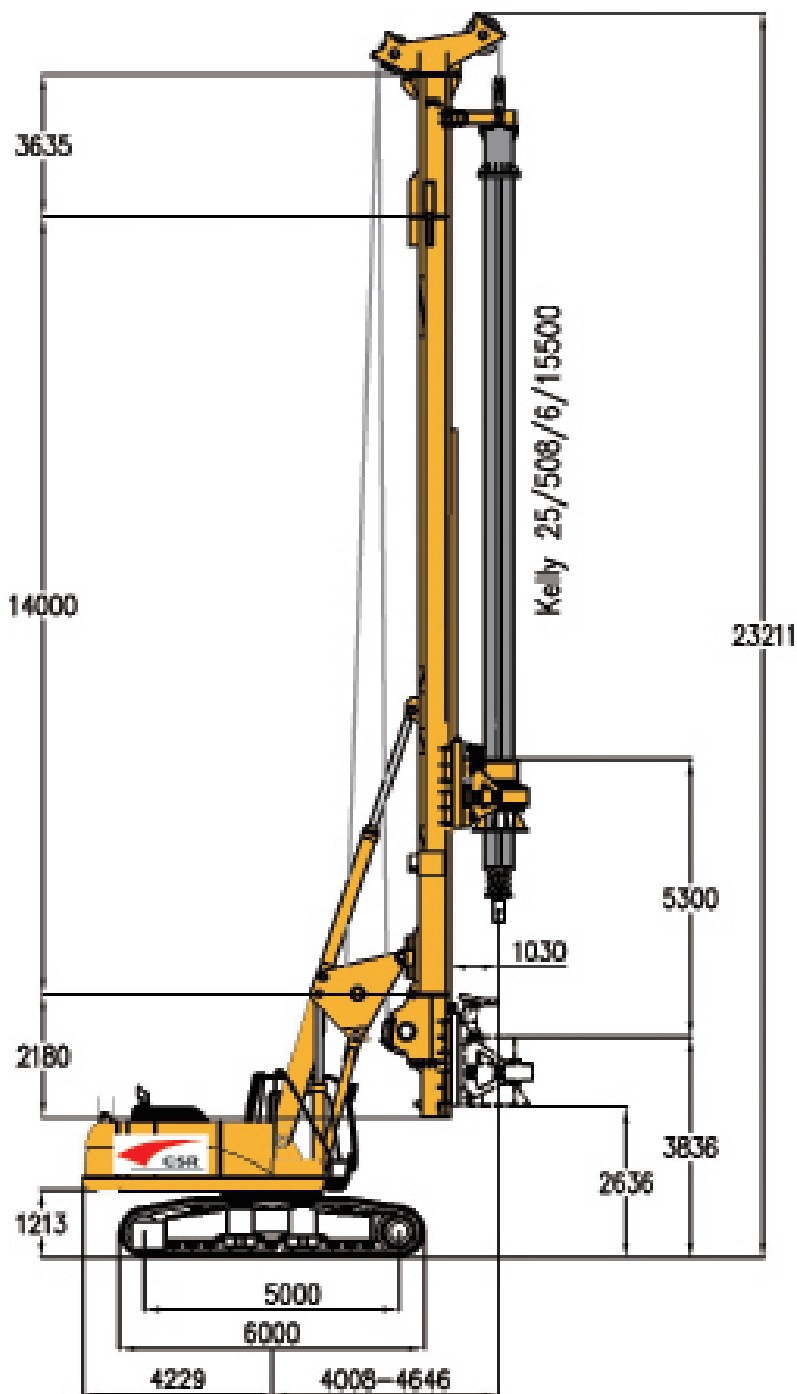
Crowd cylinder type



The TR280DI rotary drilling rig has an operating weight of approx 81 ton . It is suited for:

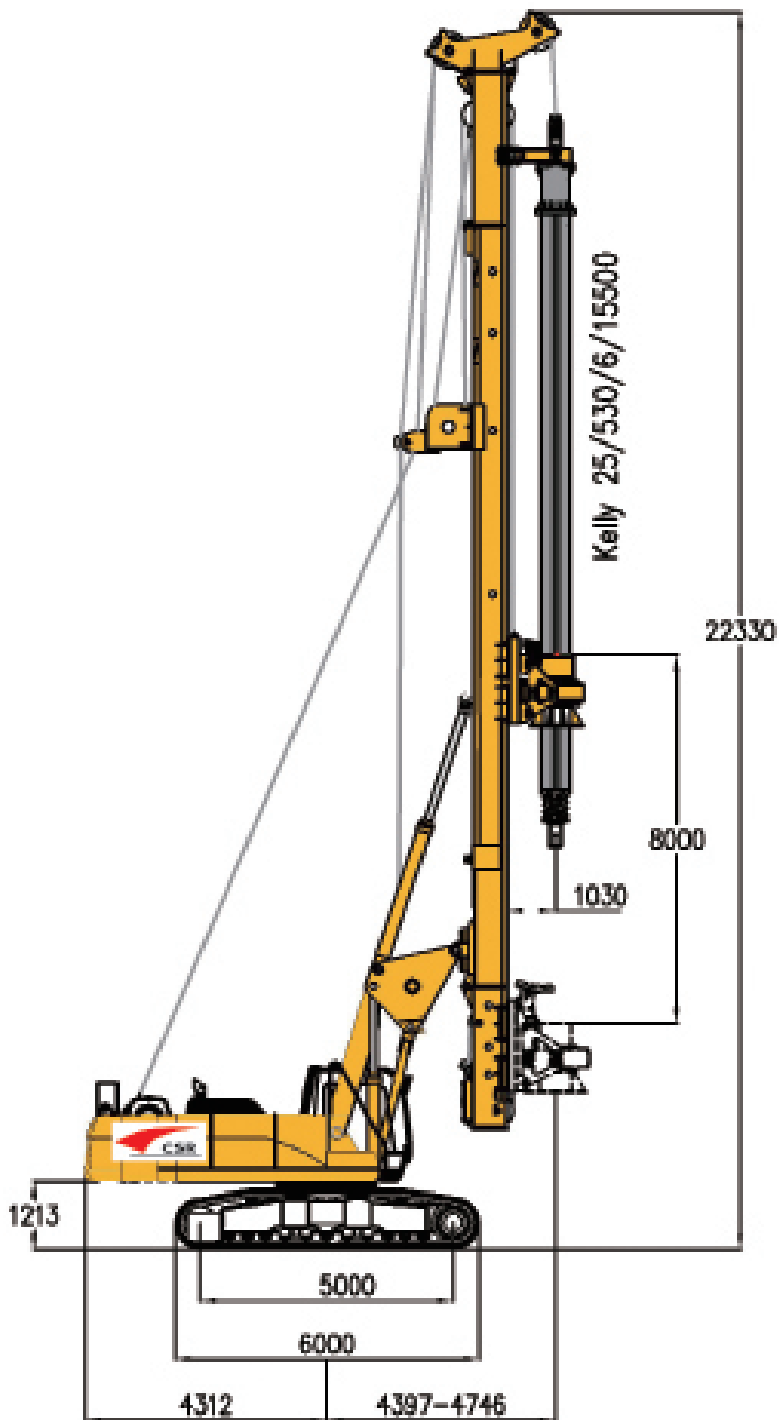
- Rotary drilling
- Drilling cased boreholes (installation of casing by rotary drive)
- Drilling boreholes with long hollow stem augers (CAF system), with or without kelly extensions

TR280DI rotary drilling rig is mainly used in the construction of civil and bridge engineering, which adopts advanced intelligent electronic control system and load sensing type pilot control hydraulic system, the whole machine is safe and reliable.



Dimensions

Crowd winch type



The whole machine standard equipment

- Main machine system (Include chassis system, power system, mast system, Rotary Drive)
- One set Kelly bar
- 250 working hours maintenance package
- Two set drilling buckets
- Spare parts kit



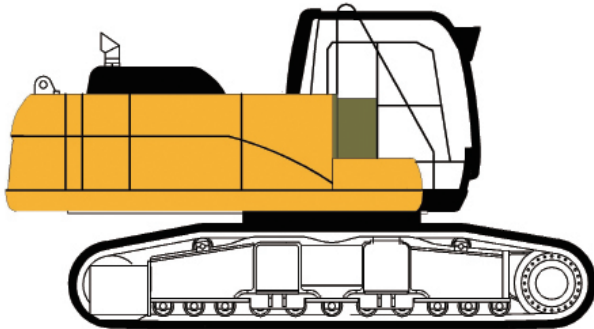
Technical parameters

| | Crowd cylinder | Crowd winch |
|-------------------------------|----------------|-------------|
| Overall weight | 68 ton | 68 ton |
| Operation weight (with kelly) | 81 ton | 81 ton |
| Rotary Drive | | |
| Nominal torque | 280 kNm | 280 kNm |
| Speed of rotation | 6-23 rpm | 6-23rpm |
| Crowd system | | |
| Crowd force push/pull | 180/200 kN | 250/250 kN |
| Stroke (kelly system) | 5300 mm | 8000 mm |
| Stroke (CFA system) | | 16000 mm |
| Rope diameter/length | | 26mm/50m |
| Speed down/up | 5/6 m/min | 6/6 m/min |
| Fast speed down/up | | 12/12 m/min |
| Main winch | | |
| Line pull (1st layer) | 290 kN | 290 kN |
| Rope diameter/length | 32mm/120m | 32 mm/120m |
| Line speed max | 60m/min | 60m/min |
| Auxiliary winch | | |
| Line pull (1st layer) | 110 kN | 110 kN |
| Rope diameter/length | 20 mm/60m | 20 mm/60m |
| Line speed max | 65m/min | 65m/min |
| Mast inclination | | |
| Backward/forward/lateral | 15/5/5 | 15/5/5 |

Standard module

- Rotary drive (two reduction gears), self-adaptive drilling
- Hoist limit switch on main and auxiliary winches
- PLC processor and standard monitor unit
- Display of pump pressures and fault messages
- Mast inclination measurement on X/Y axes
- Display of drilling depth
- Swing caution light and stability monitoring system

Base Carrier CAT336D



Engine

| | |
|-------------------------------|----------------|
| Rated output | 261kW@1800rpm |
| Diesel tank | 620L |
| Ambient air temperature | -20° up to 40° |
| Sound pressure level in cabin | 77 dB |
| Sound power level | 112 dB |

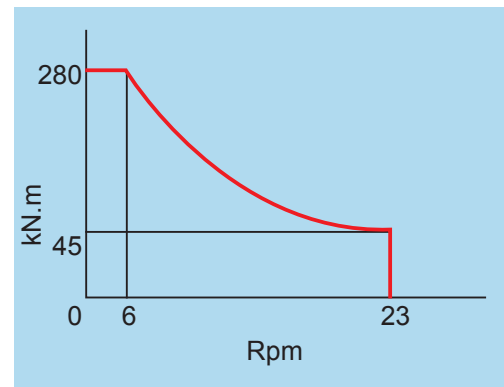
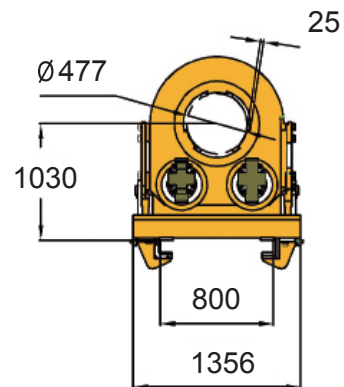
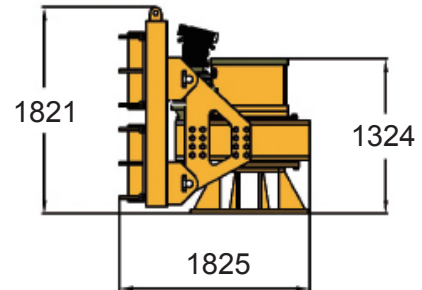
Hydraulic system

| | |
|---------------------------------------|-------------|
| Hydraulic power output | 195 kW |
| Hydraulic pressure | 350 bar |
| Flow rates (main pump) | 2x265 l/min |
| Flow rates (auxiliary pump) | 90 l/min |
| Hydraulic oil main tank capacity | 520 l |
| Hydraulic oil auxiliary tank capacity | 280 l |
| Hydraulic oil spin-off tank capacity | 60 l |

Undercarriage

| | |
|--|---------------|
| Crawler type | TC325VH |
| Track width (retracted/extended) | 2200mm/3500mm |
| Overall width of crawlers (retracted/extended) | 3000mm/4300mm |
| Width of track shoes | 800 mm |
| Overall length of crawlers | 6000 mm |
| Traction force | 510 kN |
| Travel speed | 1.4 km/h |

Rotary Drive

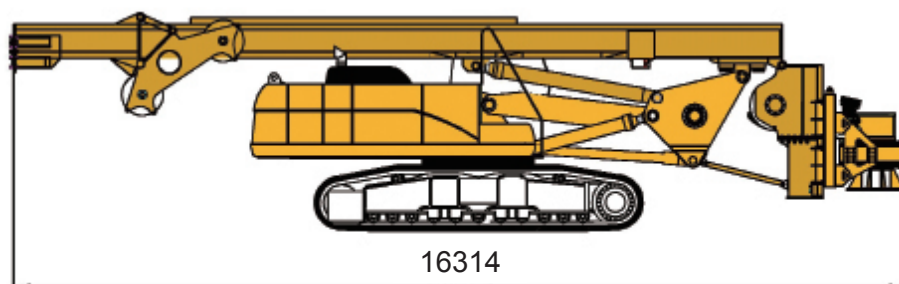


Rotary Drive Standard equipment

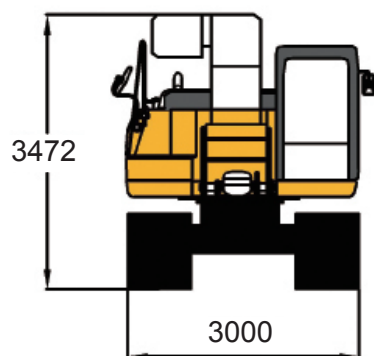
- Integrated Kelly damping system (Four level damping)
- Exchangeable Kelly drive adapter
- Exchangeable Kelly drive keys
- Self-adaptive drilling system

Transport data

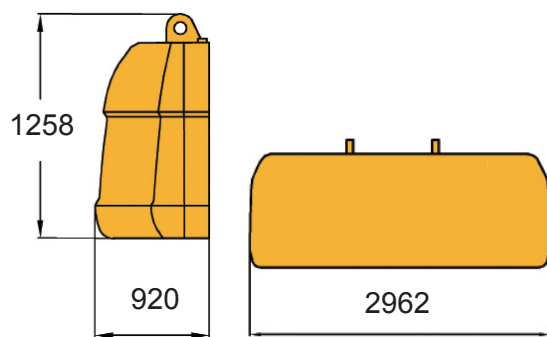
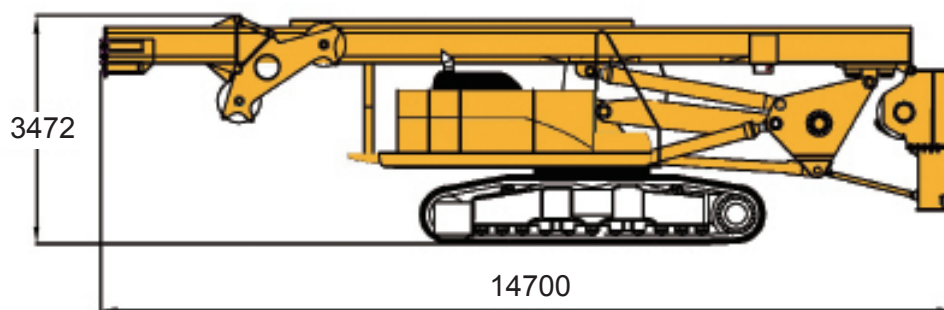
G=68 ton



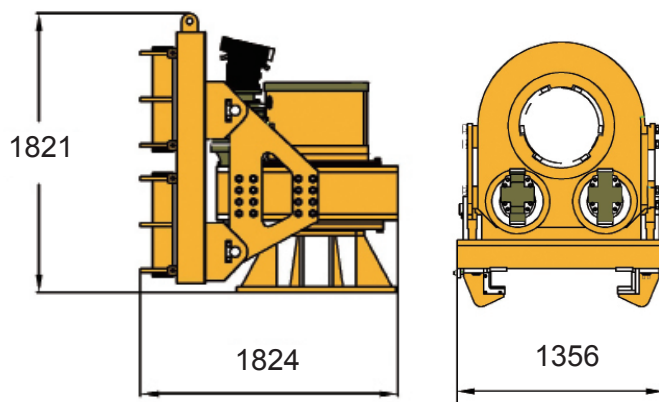
G=37.3 ton



G=48.2 ton



G=(9+5)ton



G=5.8 ton

Kelly drilling system

Crowd cylinder type

| Friction kelly bar | A(m) | B(m) | T(m) |
|--------------------|------|------|------|
| Φ508-6x15.5 | 15.5 | 89.4 | 85 |
| Φ508-6x14.5 | 14.5 | 83.4 | 79 |
| Φ508-5x15.5 | 15.5 | 74.7 | 70.3 |
| Φ508-5x14.5 | 14.5 | 69.7 | 65.3 |

Interlocking Kelly bar

| | | | |
|-------------|------|------|------|
| Φ508-4x15.5 | 15.5 | 60 | 55.6 |
| Φ508-4x14.5 | 14.5 | 56 | 51.6 |
| Φ508-3x15.5 | 15.5 | 45.3 | 40.9 |
| Φ508-3x14.5 | 14.5 | 42.3 | 37.9 |

Max. Drilling diameter 2500 mm

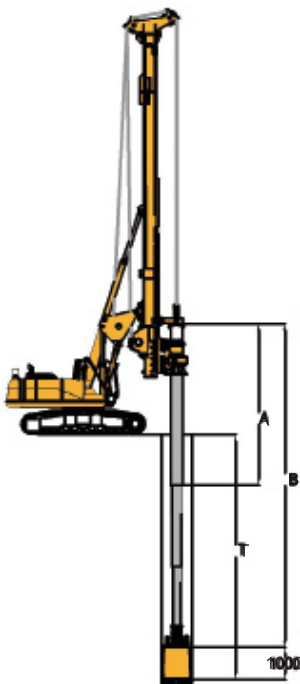
Crowd winch type

| Friction kelly bar | A(m) | B(m) | T(m) |
|--------------------|------|------|------|
| Φ530-6x15.5 | 15.5 | 89.4 | 85 |
| Φ530-6x14.5 | 14.5 | 83.4 | 79 |
| Φ530-5x15.5 | 15.5 | 74.7 | 70.3 |
| Φ530-5x14.5 | 14.5 | 69.7 | 65.3 |

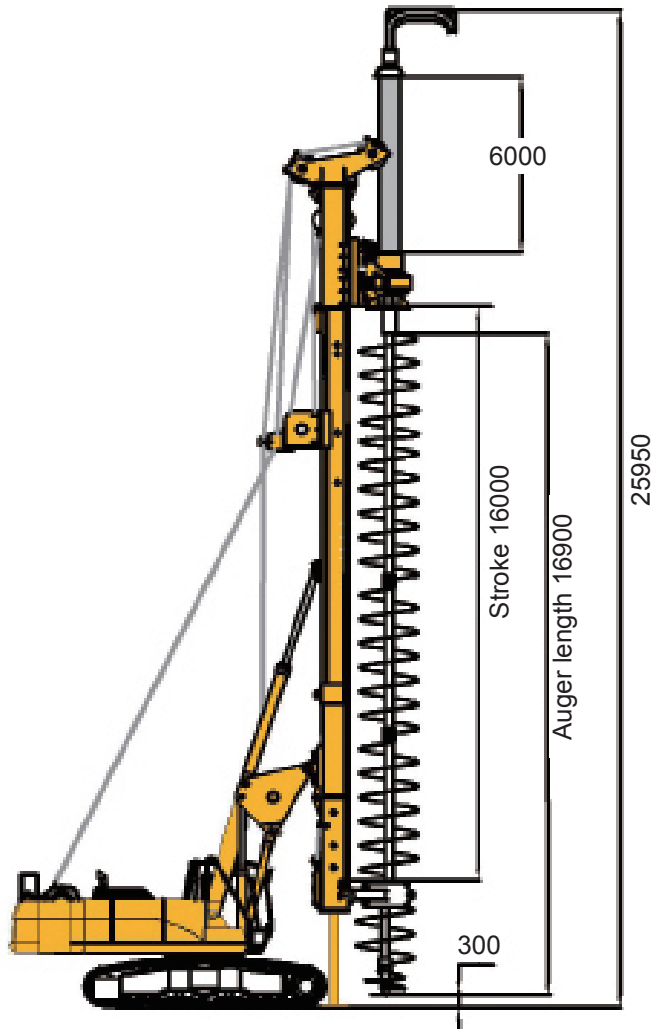
Interlocking Kelly bar

| | | | |
|-------------|------|------|------|
| Φ530-4x15.5 | 15.5 | 60 | 55.6 |
| Φ530-4x14.5 | 14.5 | 56 | 51.6 |
| Φ530-3x15.5 | 15.5 | 45.3 | 40.9 |
| Φ530-3x14.5 | 14.5 | 42.3 | 37.9 |

Max. Drilling diameter 2500 mm



CFA drilling system



| | Standard | Kelly extension 6m |
|---|----------|--------------------|
| Drilling depth | 15.5m | 21.5m |
| Drilling diameter | 1000mm | 1000mm |
| Pulling force (crowd winch) | 250kN | 250 kN |
| Max.pulling force (crowd winch+ main winch) | 810 kN | 810 kN |
| Crowd force | 180 kN | 200 kN |
| Auger length | 16900mm | 16900mm |



ISO9001:2000
国际质量管理体系认证

Contact information

SKC Mühendislik San. ve Tic. Ltd. Şti.
İMES Makina İhtisas OSB, Küçük Sanayi
Sitesi, C5 BLOK, NO: 2 Dilovası-Gebze
Kocaeli /TURKEY

Tel: +90 262 502 06 54
Gsm: +90-532 470 30 10
Fax: +90 262 502 06 57

E-mail: info@skcmakina.com
Web: www.skcmakina.com



All technical data are purely indicative and subject to change without notice

Other info: