

Soilmec
Solution Provider

soilmec[®]
Drilling and Foundation Equipment

Product Line



Hydraulic Piling Rigs

Soilmec, leader in the ground engineering field since 1969.

Soilmec, leader in the ground engineering field since 1969. Since its inception, Soilmec has always developed safe, innovative, cutting-edge technologies supplying the construction industry with a full spectrum of equipment solutions.

Soilmec equipment is used every day on jobsites all around the world for the construction of bridges, viaducts, motorways, tunnels, underground lines, railways, industrial plants, ports and buildings. Thanks to a broad, constantly upgraded and improved range of products and a greatly increased production capacity, Soilmec is a leading light of the ground engineering industry worldwide.

Soilmec has 8 manufacturing facilities (Italy, USA, Brazil, China, Dubai and India) and an extensive distribution network of dealers and branches in more than 60 countries that ensure a vast coverage and representation.

Soilmec - The world is our home

From South America to the Far East and Australia, from Africa to Iceland: a Soilmec machine is working in more than 90 countries throughout the 5 continents, even in this moment. Over 90% of Soilmec turnover comes from exports. Every day, Soilmec equipment works in all types of soil and climate conditions, social contexts, languages and cultures. With its robust design, Soilmec equipment can work from desert to arctic regions. The day-by-day use in worldwide jobsites makes it possible to assess the effectiveness of the technical solutions developed by Soilmec.

Soilmec Vision - Deeply rooted in providing engineering solutions

Soilmec, a community able to develop the most advanced technologies thanks to its deep roots in the ground engineering field.

Quality

In 1990 Soilmec was awarded the UNI EN ISO 9001 certification, which reflects our commitment to supplying high-end products.

Safety

At Soilmec, we are constantly and daily committed to maintaining the highest standards to safeguard the health and safety of our employees and customers.

Environment

In 1997 Soilmec was awarded the ISO 14001 certification, which demonstrates our serious commitment to protecting the environment.



Soilmec new product lines

Soilmec is proud to introduce three new hydraulic drilling rig lines: Evolution, Advanced and High Technology.

These new product lines have been specially designed to best meet the global piling construction industry demand.

The three new lines enrich Soilmec's "Solution provider" concept: ensuring the best products, technologies, support and service to fulfil your needs.

Welcome to the new blue!





EVOLUTION LINE

Functionality: it can meet specific piling requirements.

Designed for bored piles with Kelly bar and CFA.



ADVANCED LINE

Flexibility: it can suit different technologies.

Designed for bored piles with Kelly bar and CFA; complementary kits allow to perform all piling and soil improvement techniques.



HIGH TECHNOLOGY LINE

Multifunctionality: it can perform different technologies.

Designed for bored piles with Kelly bar and CFA, it can be easily converted to perform all piling and soil consolidation techniques.



The new Blue lines



Drilling rigs designed for maximum onsite return on investment.

- Efficiency
- Power
- Performances
- Flexibility



Engine automatic idle speed system to maximise fuel economy.

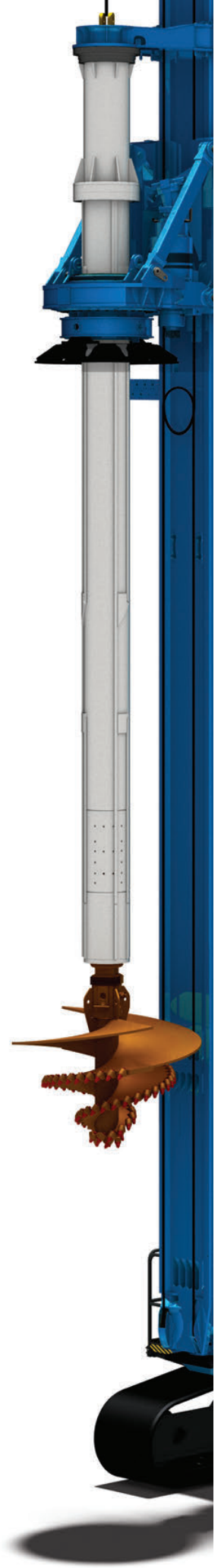
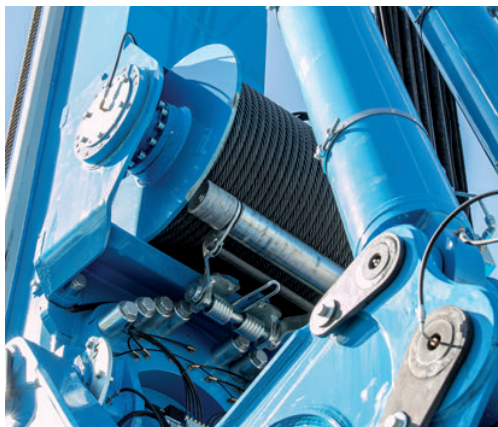
Hydraulic components and circuit specially designed for maximum performance.

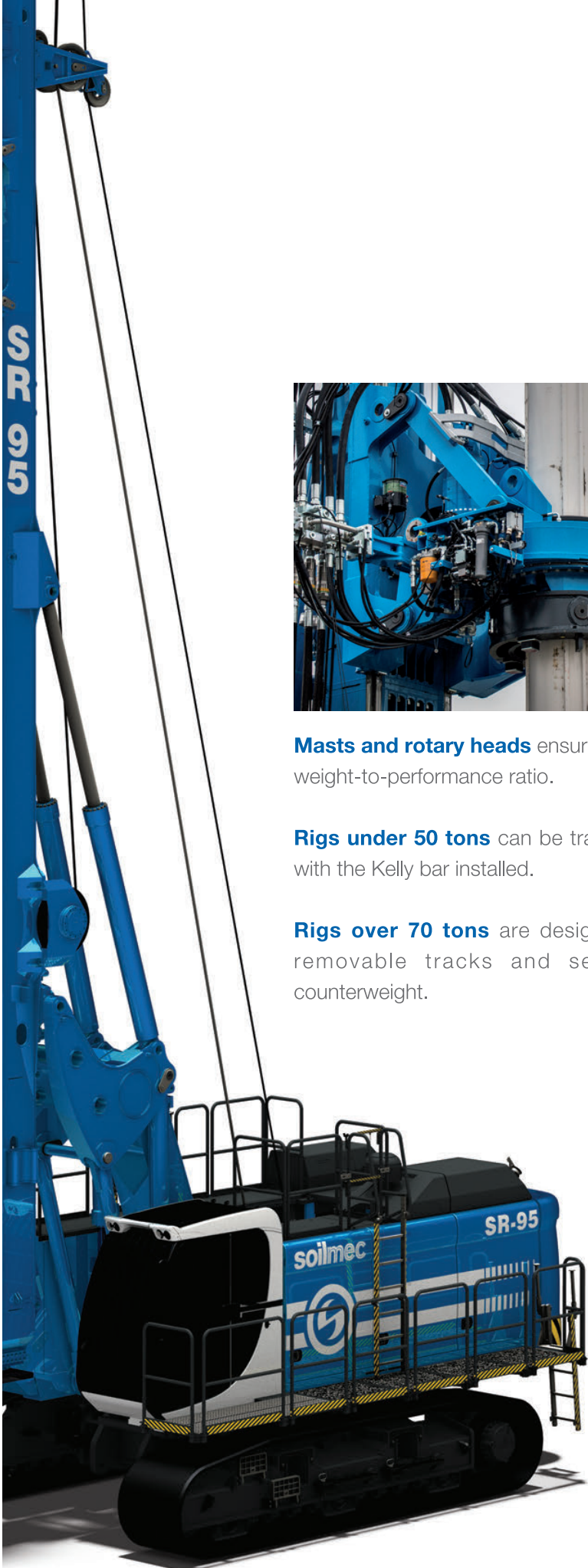
Wiring harness solution with quick-fit connectors.

Cylinder Crowd system designed to use longer casings or very large diameter drilling augers and buckets.

Easy conversion from Cylinder to Winch crowd system.

Controlled descent or free fall winches with wider grooved drums to optimise rope working life and minimise wear and tear.

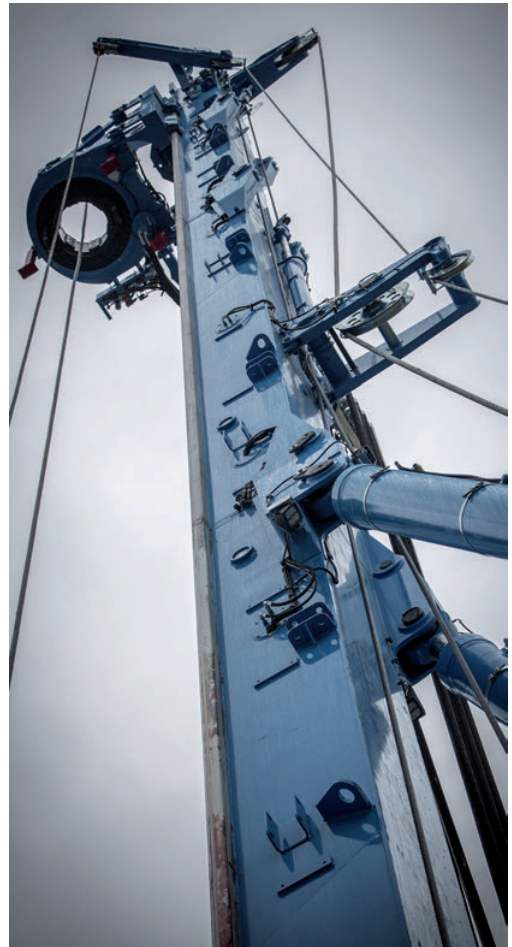
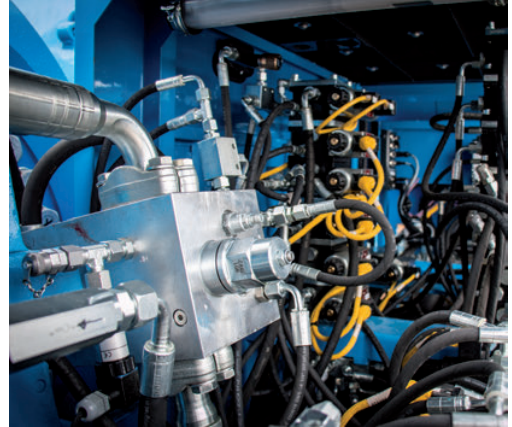




Masts and rotary heads ensure the best weight-to-performance ratio.

Rigs under 50 tons can be transported with the Kelly bar installed.

Rigs over 70 tons are designed with removable tracks and self-lifting counterweight.



Complementary kits allow to use different piling and soil consolidation techniques.

Soilmec H-Cab



A cab designed with operator comfort, ease-of-use and increased productivity in mind.

- Large-size
- Easy access
- Improved visibility
- Ergonomic design



1050mm-wide operator compartment with large windows for increased space and higher visibility.



Sliding door for effortless access with catch against accidental closing.

Fully adjustable air suspension seat with additional lumbar support.

Climate control unit to maintain the most comfortable temperature inside the cab.



DMS-ON-BOARD, a multi-language adjustable touch-screen to manage the drilling rig, monitor alarms, and set and store technology parameters in real time.



Safety & Environment



Drilling rigs designed in compliance with the new European standard EN 16228

- Safer access
- Higher visibility
- Increased manoeuvrability
- Environmentally-friendly



Removable 900mm-wide platforms with handrails and ladders for easier and safer access to the cab and turret top floor.

CCTV cameras with dedicated 7" screen in the operator cab and adjustable mirrors to ensure maximum control of the work area surrounding the rig. LED lights inside the cab and all around the rig ensuring at least 10 lux in the dark.



Radio remote control for rig loading and unloading onto/from trucks. Automatically activated warning tone during rig travelling and turret slewing.



Oil discharge conveying system with quick-connect hoses for fluid change. Fiberglass canopies with sound proofing system for improved noise reduction. **U.S. EPA Tier 4 Final and EU stage IV** low-emission engines with open crankcase ventilation filter, particulate filter and high temperature regeneration system to reduce particulate emissions by up to 90% and achieve a NOx reduction of up to 50%.





EVOLUTION

Functional rigs designed to offer you the best performances in LDP and CFA versions.





Features

- CAT base turret equipped with CAT Tier3 diesel engine.
- Cylinder/Winch pull-down quick conversion system.
- Transported in one single piece with no Kelly bar or CFA for faster rig-up on site.



| EVO line - Model | SR-40 | SR-60 | SR-80 |
|--------------------|---------|---------|---------|
| Max pile diameter | 1500 mm | 1800 mm | 2000 mm |
| Max pile depth | 61 m | 71 m | 77 m |
| Max torque | 161 kNm | 201 kNm | 271 kNm |
| Rated engine power | 180 kW | 261 kW | 328 kW |
| Operative weight | 47 t | 60 t | 80 t |



ADVANCED

Flexible rigs designed to offer you the best suited drilling solution.



Features

- Base turret equipped with Tier3 or Tier4 diesel engine.
- H-cab with on-board DMS.
- CFA, DP, CSP, LHR and Turbo-Jet conversion kits.



| ADV line - Model | SR-30 | SR-45 | SR-75 |
|--------------------|---------|----------------|----------------|
| Max pile diameter | 1500 mm | 1500 (3000) mm | 2000 (2500) mm |
| Max pile depth | 48 m | 65 m | 76 m |
| Max torque | 130 kNm | 185 kNm | 290 kNm |
| Rated engine power | 168 kN | 201 kN | 328 kN |
| Operative weight | 34 t | 37 t | 70 t |



HIGH TECHNOLOGY

Multifunction rigs designed to offer you the best technological solution.



Features

- Base turret equipped with Tier3 or Tier4 diesel engine.
- H-cab with on-board DMS.
- CFA, DP, CSP, LHR and Turbo-Jet quick conversion kits.



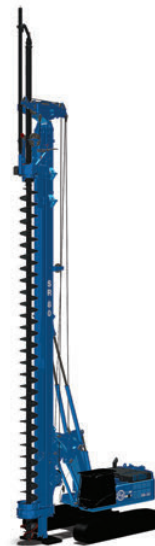
| HIT line - Model | SR-95 | SR-125 | SR-145 |
|--------------------|----------------|----------------|----------------|
| Max pile diameter | 2100 (3000) mm | 3000 (3500) mm | 3000 (3500) mm |
| Max pile depth | 106.5 m | 121 m | 121 m |
| Max torque | 351 kNm | 435 kNm | 435 kNm |
| Rated engine power | 403 kN | 470 kN | 470 kN |
| Operative weight | 90 t | 128 t | 145 t |

CFA version

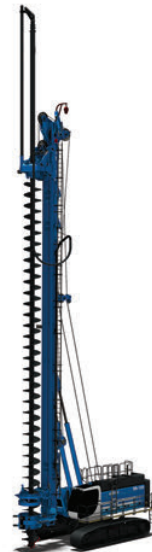
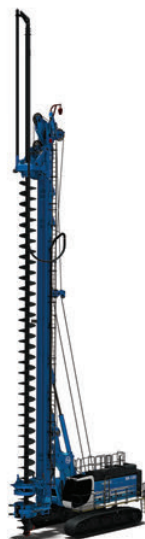
Continuous Flight Auger piles

Since 1982 Soilmec is a worldwide leader in the manufacture of CFA drilling rigs.

Every Soilmec LDP rig can be converted to CFA technology to construct piles with a maximum diameter of 1200 mm and a maximum depth of 36 metres.



| CFA line - Model | SR-40 | SR-60 | SR-80 | SR-30 |
|-------------------|---------|---------|---------|--------|
| Max pile diameter | 1000 mm | 1000 mm | 1200 mm | 900 mm |
| Max pile depth | 20 m | 22 m | 23.7 m | 23 m |
| Extraction force | 520 kN | 560 kN | 800 kN | 380 kN |
| Operative weight | 49 t | 62 t | 79 t | 38 t |



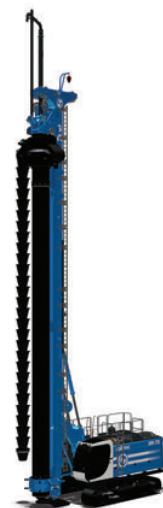
| SR-45 | SR-75 | SR-95 | SR-125 | SR-145 |
|-------------|----------------|---------|---------|---------|
| 1000 mm | 1200 mm | 1200 mm | 1200 mm | 1200 mm |
| 21.5 (24) m | 25.5/27 (29) m | 30/32 m | 32/36 m | 32/36 m |
| 480 kN | 984 kN | 1100 kN | 1036 kN | 1362 kN |
| 41 t | 71 t | 94 t | 127 t | 144 t |

CAP/CSP version

Cased Auger Piles Cased Secant Piles

The SR-75 ADV and High Technology piling rigs can be converted to CAP/CSP technologies.

The Soilmec solution of two completely independent rotaries to drive the auger and the casing along the mast proved its worth in very complex construction sites and in extreme geological conditions. CAP/CSP piles can be constructed with a maximum diameter of 1200 mm at a maximum depth of 29 metres.



| | |
|-----------------------------------|---------|
| CAP/CSP line - Model | SR-75 |
| 2 nd rotary max torque | 268 kNm |
| Max diameter | 800 mm |
| Max pile depth | 24,5 m |
| Max cased depth | 18,4 m |



SR-95

SR-125

SR-145

335 kNm

508 kNm

508 kNm

1000 mm

1200 mm

1200 mm

27,3 m

29,2 m

29,3 m

20,8 m

23 m

22,8 m

DP/TCT version

Displacement Piles

Traction Compacting Technology (Patented)

The Advanced and High Technology piling rigs can be converted to DP technology.

TCT has been developed to displace soil while the special patented tool is extracted upon completion of drilling. Soil displacement is obtained by exploiting the rig's pull-up force (that is always higher than the pull-down force).

Additional rear outriggers and mast lattice extensions improve stability and performance and allow to construct piles with a maximum diameter of 1000 mm at a maximum depth of 39 metres.



| DP/TCT line - Model | SR-45 | SR-75 |
|--|--------|--------|
| Max pile diameter | 350 mm | 600 mm |
| Max TCT diameter | 400 mm | 800 mm |
| Max pile depth | 20 m | 22,7 m |
| Max pile depth with lattice mast extension | 23 m | 30,7 m |



SR-95

600 mm

800 mm

25,5 m

33 m

SR-125

800 mm

1000 mm

28,5 m

36 m

SR-145

800 mm

1000 mm

31,5 m

39 m

TJ version

Turbojet®

The Advanced and High Technology piling rigs can be converted to TJ technology to create columns of consolidated soil with a maximum diameter of 1500 mm and a maximum depth of 31 metres.

An additional external power pack allows to construct two columns simultaneously, with the possibility to adjust the axis-to-axis distance.



| TJ line - Model | SR-45 | SR-75 |
|--|---------|---------|
| Max treatment diameter | 1000 mm | 1500 mm |
| Max Pile depth with 8,5 m string extension | 19 m | 20,7 m |
| Mast lattice boom extension length | 10 m | 15,8 m |
| Max depth c/w lattice boom mast extension | 23 m | 30,7 m |



| SR-95 | SR-125 | SR-145 |
|---------|---------|---------|
| 1500 mm | 1500 mm | 1500 mm |
| 25,5 m | 28,5 m | 31,5 m |
| 15,8 m | 15,8 m | 15,8 m |
| 33 m | 36 m | 39 m |

LHR version

Low Headroom Rigs

Every Soilmec LDP rig can be converted into a LHR rig to drill piles with a maximum diameter of 1200 mm at a maximum depth of 36 metres.

The conversion kits have been designed to operate in jobsites with low headroom conditions.



| LHR line - Model | SR-30 | SR-45 |
|----------------------|----------------|----------------|
| Min operating height | 7,5 ÷ 12,2 m | 8,5 ÷ 9,8 m |
| Max pile diameter | 1500 (3000) mm | 1500 (3000) mm |
| Max pile depth | 24,8 m | 19,3 m |
| Crowd system stroke | 2550 mm | 2500 mm |
| Crowd system force | 101 / 124 kN | 140 / 207 kN |



| | |
|----------------------|---------------|
| LHR line - Model | SR-75 |
| Min operating height | 5,9 ÷ 8,9 m |
| Max pile diameter | 2500 mm |
| Max pile depth | 60 m |
| Crowd system stroke | 2440 ÷ 5440 m |
| Crowd system force | 230 / 230 kN |

Blue is the color of the clear horizon, shining with innovation.
Blue is the color of excellence.
Blue is the color of our new equipment,
designed for the future, ready today.



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