



# Product Catalogue

*Your solution provide*

**soilmec**®  
PEOPLE | KNOW HOW | PRODUCT



# People

## **People are our most important resource & inspiration.**

Bringing people back to the center with their needs and hopes is an integral part of Soilmec's mission. To reach this important goal, listening and being close are fundamental.

Customers, operators, the community and, of course, our Soilmec Team are the heart and focus of what we do. Giving our customers the decisive boost for their business, basing our partnerships on top quality performance, providing, through our network, tailor-made services to ensure proximity to our customers wherever they are.

- 10 Soilmec companies**
- 45 distribution companies**
- 1300 persons included in Soilmec activity**
- Soilmec rigs currently working in over 70 countries**

# Know-how

## **Foundation jobsites have always been our home.**

We learned what it takes, even in the most challenging situations so we know how to turn your business into a profitable one. In Soilmec we never settled for our pioneering expertise: we keep evolving our technology, always looking for innovations to improve your drilling needs and make your processes easier. We develop our Know-How, raising the bar of our results to offer our customers cutting-edge products and services.

- More than 1000 rigs connected with DMS**
- More than 500 training courses**
- Dedicated team for research & innovation**
- The heart of engineering excellence for more than 50 years**

# Product

## **Soilmec equipment is solid, powerful and durable.**

By combining the know-how of our team and a drive for innovation, we create our products and services. We design machines in a full range of options, to help you achieve your goals and to undertake every context of excavation with state-of-the-art technology. We raise our standards beyond the highest level of safety; implementing innovative solutions to minimize every impact.

- 30 models & hundreds of set-ups**
- More than 120 patents filed**
- Feasibilities and suited solutions on your needs**
- UNI EN ISO 9001 / 14001 and 45001 TÜV quality certifications**

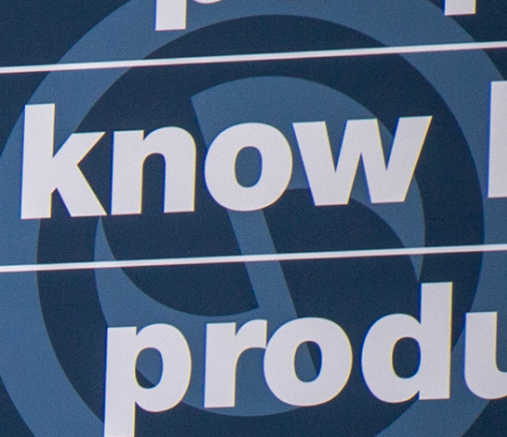




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# Blue Tech line



Based on the experience and success of the first generation, the new SR machines of the Blue Tech line have been designed to improve their productivity and operational flexibility to an ever-greater extent, reducing operating costs and emissions as well as dedicated care on comfort, ergonomics and safety of operator and staff on site.

The design of the Blue Tech Lines is based on the optimization of power transmission and on the minimization of energy dissipation. Particular attention has been given to the main parts of the machine which are normally involved during the work cycle. In this way they improve combustion and cooling efficiency and ultimately reduce noise pollution. All these solutions and improvements reduce the fuel consumption and the carbon footprint emissions.

- **Increased production rate:**

Improved mechanical performance thanks to the reduction of losses

- **Less fuel consumption:**

Saving up to 10,4 l/h

*(based on a SR-75 BT standard working cycle)*

- **Healthier and safer working environment:**

Lower noise and lower CO<sub>2</sub> emissions







Built to shape a safer world, engineered to create a better future, e tech is the new generation of Soilmec machines.

The project was born with the aim of creating the first electric drilling machine, evolving that path started decades ago, with the advent of the first electric motorized machines for drilling and consolidation works in internal environments and in tunnels (*ST-20, ST-60, SM-5E etc ..*).

It is no longer a simple “engine replacement” where the diesel engine is replaced by an electric motor, but this is referred to as an electrical power supply aligned with the latest developments in the sector, which within the power transmission sees permanent magnet electric motors, lithium battery, alternatives to cable power supplies and control inverters, therefore very far from previous technologies.

This represents the first step in the development of a whole range of electrified Soilmec machines, what we call e Tech, the zero emission Soilmec brand new line.

A new line of machines, from micropiles, piles and cranes, which responds to the increasingly frequent demands of the market in terms of reducing polluted and acoustic emissions, increasing efficiency and reducing operating costs.







## Hydraulic drilling rigs for large diameter pile technologies

- **SR line** - The Soilmec main line reflects more than 50 years of expertise in foundation machinery
- **SF line** - Equipment dedicated to Continuous Flight Auger drilling technique
- **STM line** - Trucks Mounted rigs (*trucks with 3 or more axis*)

	LDP Kelly bar & Segmental casing	LHR Low Headroom	CFA Continuous Flight Auger	CAP / CSP Cased Augered / Secant Pile	VDW Cased Augered Pile	DP/TCT Displacement Pile	Turbojet® Soil Mixing
SR-30 Eagle	■	■	■				
SR-35	■	■	■				
SR-45	■	■	■			■	■
SR-65	■	■	■		■	■	■
SR-75	■		■		■	■	■
SR-95	■		■	■	■	■	■
SR-105	■		■	■	■	■	■
SR-125	■		■	■		■	■
SR-135	■		■	■		■	■
STM-20	■						
STM-30	■						
SF-55			■				
SF-65			■				





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# SR line

## Hydraulic rigs for large diameter pile technologies



The SR Soilmec Rigs is the Soilmec's main line and reflects more than 50 years of expertise in foundation machinery.

A complete range of equipment, from 30 to 145 ton class rigs, able to perform a variety of technologies.



Model	SR-30 Eagle	SR-35	SR-45	SR-65	SR-75
Weight w/o Kelly	26400/29300 kg	32700 kg	38000 kg	56500 kg	71000 kg
Rated engine power	149 kW	179 kW	209 kW	272 kW	345 kW
Max torque	131 kNm	151.6 kNm	185 kNm	258.5 (271) kNm	293 kNm
LDP Max diameter	1500/3000 mm	1500/3000 mm	1500/3000 mm	2000/3000 mm	2300/2800 mm
LDP - BL/FR Max depth	40.2 (47.5)/32.4 (37.7) m	45.4 (50.9)/56.7 (63.4) m	51.7/65 (69.7) m	62.5/77.9 m	62/78 (93) m
LHR Max diameter	1500 mm	1500/3000 mm	1500/3000 mm	1500/3000 mm	n.a.
LHR Max depth	16.2 m	16.8 (23.3) m	23.7 m	21 (28.5) m	n.a.
CFA (Quick/4°lines) Max diam.	900 mm	900 mm	1000 mm	1200 mm	1200 mm
CFA (Quick/4°lines) Max.depth	21 (22) m	12.9 (25) m	21.5 (23.2)/26 m	23.5/30 m	26.2/31 m
DP (DP/TCT) Max diam.	n.a.	n.a.	350/400 mm	600/800 mm	600/800 mm
DP (Std/Ext) Max depth	n.a.	n.a.	23 m	28.5 m	30.4 m
TJ Max diameter	n.a.	n.a.	1000 mm	1400 mm	1750 mm
TJ (Quick std/Ext) Max depth	n.a.	n.a.	23 m	28.2 m	30.4 m
VDW Max diameter	n.a.	n.a.	n.a.	610 mm	609/711 mm
VDW Max depth	n.a.	n.a.	n.a.	15.8 m	18.9/15.9 m







Model	SR-95	SR-105	SR-125	SR-135
Weight w/o kelly	92000 kg	97000 kg	127000 kg	132000 kg
Engine power	455 kW	455 kW	470 kW	470 kW
Max torque	362.4 kNm	362.4 kNm	496 kNm	496 kNm
LDP Max diameter	2700/3600 mm	2700/3600 mm	3500/4000 mm	3500/4000 mm
LDP - BL/FR Max depth	70 (81.4)/89 (101.7) m	70 (81.4)/89 (101.7) m	100 (115)/120.4 (138.2) m	115/138.2 m
LHR Max diameter	n.a.	n.a.	n.a.	n.a.
LHR Max depth	n.a.	n.a.	n.a.	n.a.
CFA (Quick/4°lines) Max diam.	1200 mm	1200 mm	1200 mm	1200 mm
CFA (Quick/4°lines) Max depth	29.5/34.5 m	29.5/36.5 m	32.5/38.5 m	32.7/38.5 m
DP (DP/TCT) Max diam.	600/800 mm	600/800 mm	800/1000 mm	800/1000 mm
DP (Quick Std/Ext) Max depth	33 m	33 m	38.8 m	39 m
TJ Max diameter	1900 mm	1900 mm	1500/2300 mm	1500 mm
TJ (Std/Ext) Max depth	33 m	33 m	38.8 m	39 m
CAP/CSP Max diameter	800/1000 mm	1000 mm	1200 (900) mm	1200 (800) mm
CAP/CSP Max auger depth	26 m	26 m	28 (32) m	28.6 (29.7) m





# STM line

The Soilmec Trucks Mounted rotary rigs are designed to be fast, highly productive and easy to operate in large diameter pile applications.

This equipment can be mounted on a truck with 3 or more axis.

Four hydraulic stabilizers mounted on the sub-frame allow operation in a safe and stable condition.

Front or lateral position drilling.

Overall weight and dimensions comply with road regulations.



Model	STM-20	STM-30
Weight w/o kelly	20000 kg	29200 kg
Engine power	123 kW	164 kW
Max torque	85 kNm	113 kNm
LDP Max diameter	1800 mm	2200 mm
LDP - Max depth	30 m	48.5 m



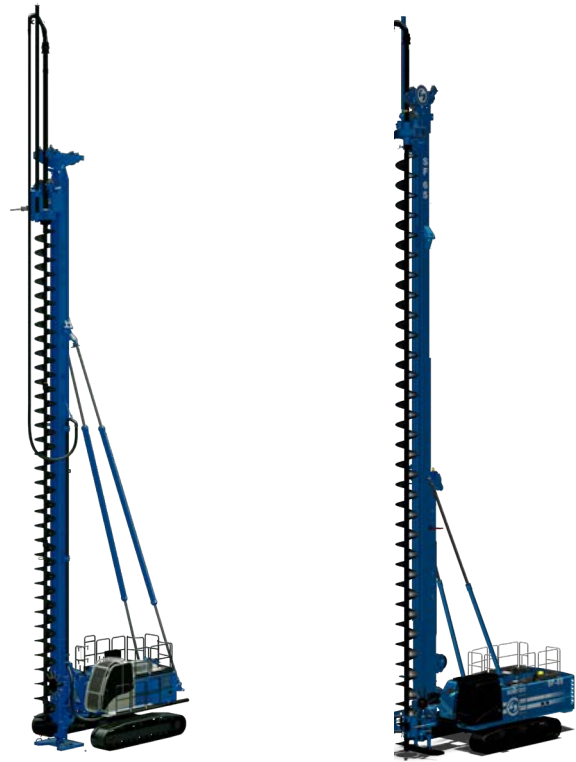


# SF line

Soilmec has always focus on CFA (Continuous Flight Auger) technology joins the advantages of fixed piles with the versatility of application of drilled piles with high-production rate.

The SF line is the evolution of many years experience with previous equipment dedicated to Continuous Flight Auger drilling technique.

Two rigs that delivers the ideal combination of efficiency, easy transportability and designed to giving the best drilling solutions. Increased performance, simplicity and reliability are the results of this new step ahead



Model	SF-55	SF-65
Weight	37200 kg	51500 kg
Engine power	168 kW	209 kW
Max torque	100 kNm	165 kNm
CFA - Max diameter	900 mm	1000 mm
CFA - Max depth	27 m	30 m







## Heavy duty crawler cranes for ground engineering technologies

- **SC line** - Multipurpose cable excavators for Heavy Duty operations
  - **Hydromill equipment line** - Tiger & Cougar hydromill equipments
  - **GH line** - Hydraulic grab for DW walls
  - **SA line** - Hydraulic rig for LDP piles
  - **SH line** - Cutting modules for hydromill

	Lifting	Casing oscillator	Dragline	Vibro	Clamshell	DC Dynamic Compaction	SA-40 Large Diameter Piles	GH-20 Diaphragm Walls	SH Diaphragm Walls w. HYDROMILL
SC-130 HD	■	■	■	■	■	■	■	■	
SC-130 Cougar									■
SC-130 Tiger								■	■
SC-135 Tiger									■







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# HYDROMILL line

## Hydraulic crawler crane for ground engineering technologies

The Soilmec Crane range is composed by a complete line of multipurpose cranes and hydromill machines.



Model	SC-130 "Cougar"	SC-130 "Tiger"	SC-135 "Tiger"
Weight	17200kg	185000 kg	205000 kg
Engine power	563 kW	563 kW	708 kW
Cutting depth	70 - 52 m	120 m	120 - 84 m
Module unit	SH-35	SH-35 / SH-40	SH-35 / SH-40
Tail swing radius	5310 mm	5310 mm	8500 - 6200 mm

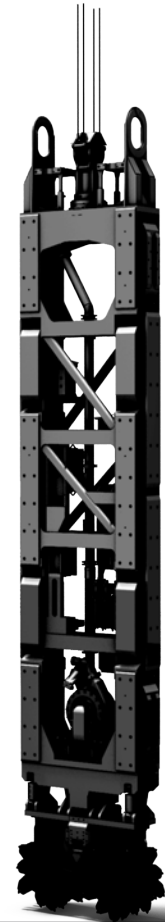




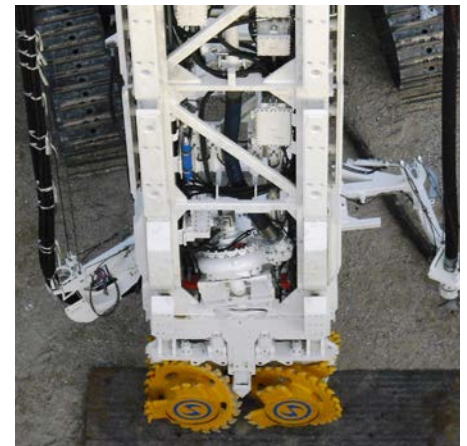
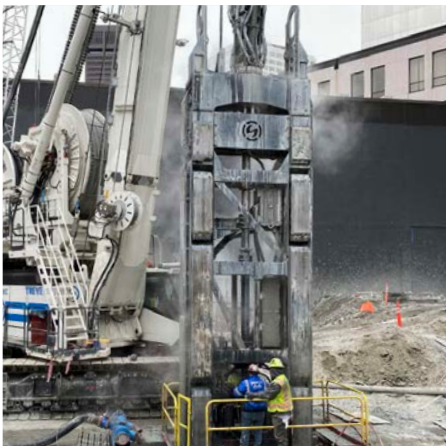
# Milling Unit

The Soilmec milling unit SH-35 & SH-40 are built in sturdy main frame. Set up with motorized swivel for module rotation system  $\pm 90^\circ$  (T-panel), independent mobile flaps and independent gearmotors on cutting unit for accurate verticality. Disassembly and reassembly of excavation wheels are greatly simplified.

DMS system in 4.0 version, guarantees of verticality values with margins of error in the order of 0.2%, even at depths exceeding 150 m



Module	SH-35	SH-40
Weight	30000 - 40000 kg	37500 - 50000 kg
Torque	80 - 110 kNm	90 - 130 kNm
Trench		
Width	650 - 1500 mm	8000 - 1500 (1820) mm
Length	2800 - 3200 mm	2800 - 3200 mm

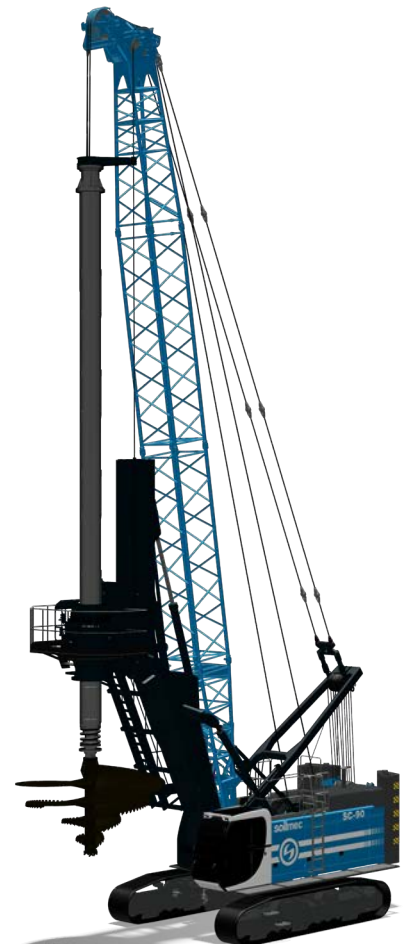




# SC line

## Hydraulic crawler crane for ground engineering technologies

The Soilmec Crane range is composed by a complete line of multipurpose cranes and hydromill machines.

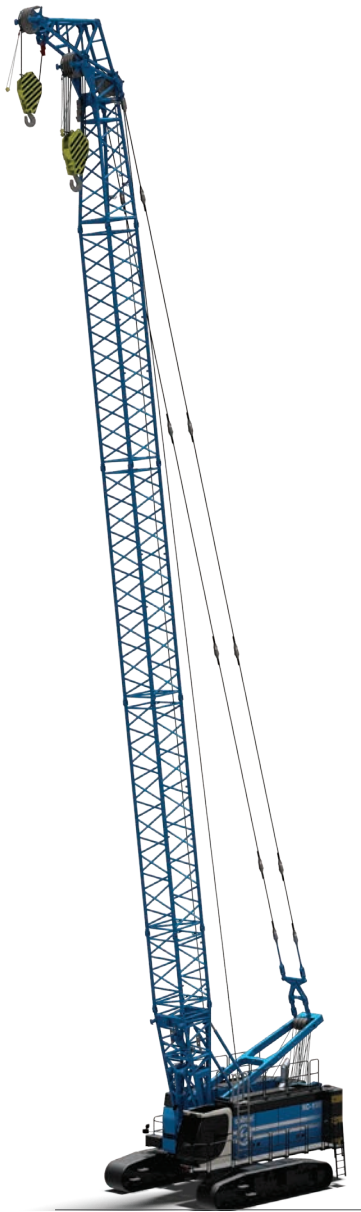


<b>Model</b>	<b>GH-20</b>
<b>Type</b>	<b>Hydraulic</b>
<b>Weight</b>	<b>15000 - 34000 kg</b>
<b>Panel width</b>	<b>600 - 1800 mm</b>
<b>Panel length</b>	<b>2500 - 4200 mm</b>
<b>Depth</b>	<b>100 m</b>

<b>Model</b>	<b>SA-40</b>
<b>Weight</b>	<b>26500 kg</b>
<b>Max torque</b>	<b>413 kNm</b>
<b>Max diameter</b>	<b>300 (3500) mm</b>
<b>Max depth</b>	<b>78.4 - 100 m</b>
<b>Min crane capacity</b>	<b>100000 kg</b>







<b>Model</b>	<b>SC-130HD</b>
<b>Weight</b>	<b>120000 kg</b>
<b>Engine power</b>	<b>563 kW</b>
<b>Winches line pull</b>	<b>300 - 350 kN</b>
<b>Boom length</b>	<b>56 m</b>
<b>Max load capacity</b>	<b>130 t @ 3.8 m</b>





# Drilling rigs

## Drilling rigs for micropiling technologies & tunnels

- **SM line** - Multipurpose micro drilling rigs
- **ST line** - Tunnel consolidation equipment

	MP Micropiles	Anchoring / Tieback	JG Jet Grouting	Double rotary Rotary + Rotary	Double rotary Rotary + Top Hammer	VD Vibratory / Sonic	Top Hammer	G - Soil Investigation Diamond	SFA Segmental Flight Augered Piles	Tunneling
SM-4	■			■			■	■		
SM-6	■	■	■				■			
SM-11	■	■	■				■	■		
SM-13e	■	■	■				■	■		
SM-14	■	■	■	■	■		■	■		
SM-15	■	■	■	■	■		■	■		
SM-15 HD	■	■	■	■	■		■	■	■	
SM-18	■	■	■	■	■	■	■		■	
SM-22	■	■	■	■	■	■	■		■	■
ST-20							■			■
ST-60			■	■			■			■





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# SM line

## Micro drilling rigs & Tunnel machine

The use of micropiles in the special foundations field has found a steady development thanks to two main requirements: the possibility of consolidating soil while increasing their bearing capacity by means of compact size equipment with improved use flexibility and the possibility of using drilling technologies into loose soils with a certain advantage in the execution times and methods.

Soilmec covers all drilling methods and rigs suitable for executing small diameter consolidation into the micropile sector:



Model	SM-4	SM-6	SM-11	SM-13e	SM-14
Weight	5700 kg	7000 kg	11000 kg	13800 kg	14000 kg
Engine power	115 kW	100 kW	129 (115) kW	4 electric motors	119 (123) kW
Max hoist	70 kN	52 kN	96 (60) kN	96 kN	89 kN
Torque range	700 - 3348 daNm	664 - 1953 daNm	470 - 3200 daNm	1760 daNm	916 - 2547 daNm
JG treatment	n.a.	9 m	12,4 m	14 m	16 m





Model	SM-15	SM-15HD	SM-18	SM-22
Weight	16500 kg	18500 kg	25000 kg	22000 kg
Engine power	142 (149) kW	186/179 kW	209 kW	209 kW
Max hoist	121 kN	121 kN	110 kN	110 (150) kN
Torque range	1207 - 3390 daNm	1207 - 3390 daNm	1143 daNm	2024 - 3661 daNm
JG treatment	19 m	20 m	27.3 m	27 m





# Training & cont

## **DME** - Drilling Mate Experience

### **The Soilmec SR Rigs Simulator**

Training courses with DME simulator enhance technical skills of participants and hands-on experience in Kelly and CFA drilling using VR technology.

DME allows operators and tech personnel to gain knowledge of the Soilmec rigs behaviour and related drilling and equipment handling processes before facing real-world situations.

Thanks to the simulator software, every phase of drilling is reproduced in an extremely realistic way, allowing students to improve their operator skills and ability in a totally safe environment. The learner is taught how to perform drilling tasks and activities in various real-world scenarios so they will be better prepared for daily challenges.

From simulation to operation, DME utilizes a fully-equipped Soilmec Blue Tech cab and controls to provide operators with an effective learning environment to improve and enhance their knowledge of the current drilling systems.

DME training is assisted by FTA tutors to simulate and track the appropriate sequence-of-operation and validate actions.



## **DMS - Drilling Mate System**

Electronic system for drilling equipment control, production supervision and fleet management developed and owned by Soilmec since the late '90s.

### **DMS product suite**

Integrated solution embracing smart technology to optimise the use of machinery and increase efficiency on job sites. Soilmec DMS helps to gain unique insights into ground engineering and piling business by collecting, analysing and managing the most relevant information from the drilling equipment. The system is intended to support construction companies in daily operations and business processes by improving decision making and leveraging the potential of data analytics.

#### **DMS ON BOARD**

Built-in instrumentation for equipment supervision and performance control.

#### **DMS PC**

Licensed software for machine and production data processing and reporting.

#### **DMS MANAGER 4.0**

Cloud app for asset, fleet and site management





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