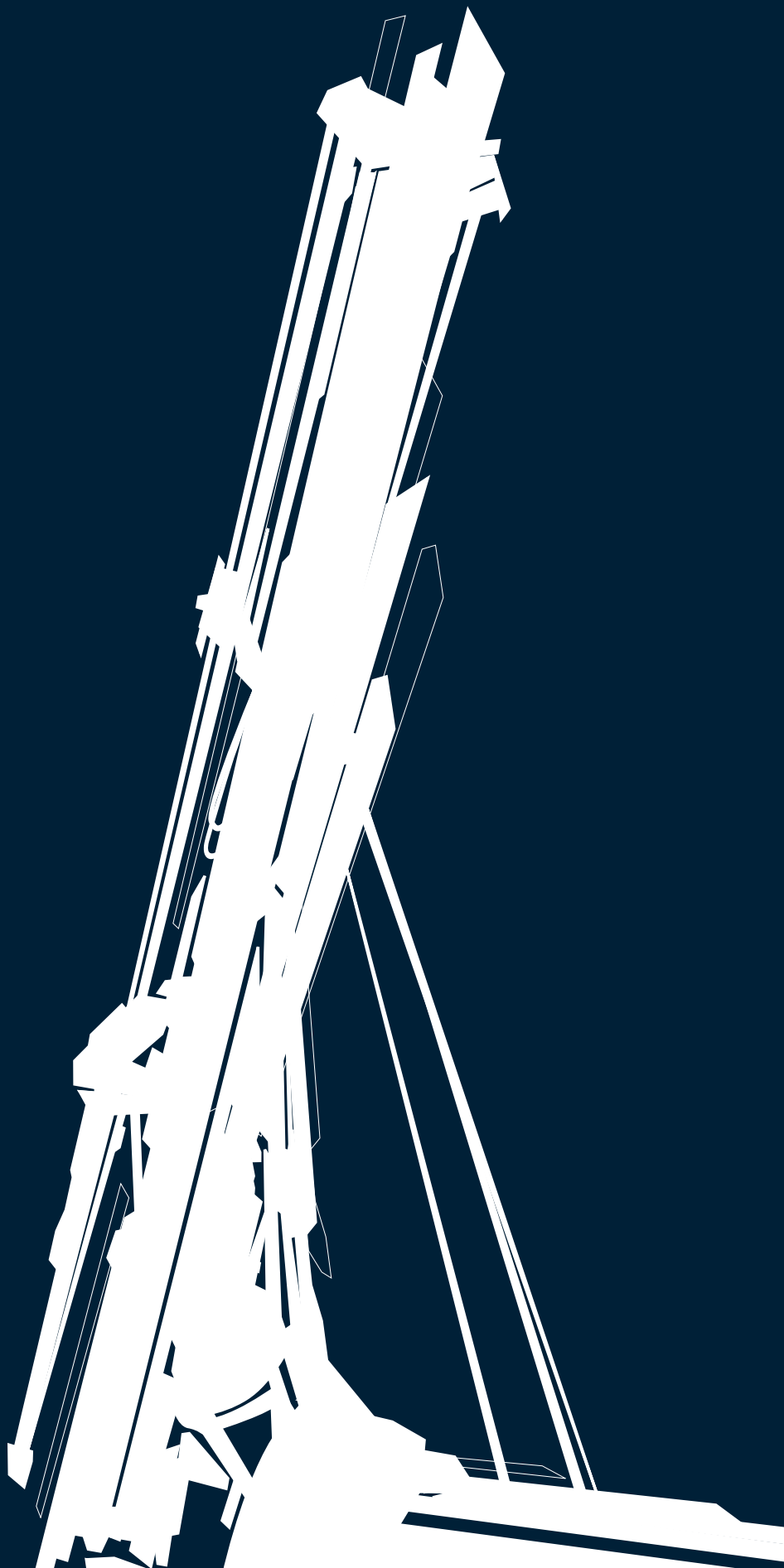


SR-50

HYDRAULIC ROTARY RIG



SR-50

HYDRAULIC DRILLING RIG

A new model

The SR-50 drilling rig on new SOILMEC base carrier high power module has been designed to perform the following jobs:

- **bored pile with or without drilling fluid;**
- **bored pile with casing installed by oscillator or rotary crowd system;**
- **continuous flight auger pile (CFA).**

The main features of SR-50 are the followings:

- Machine class: 50 tons;
- New electronic Caterpillar engine C7 ACERT® with max power 300 BHP and meeting latest TIER 3 emission regulations;
- New powerful rotary: 180 kNm, available on request as 3 gear version, available in ø 355 mm and ø 406 mm;
- Self-erecting mast able to withstand the max torque over the whole length;
- Casing driving by rotary crowd system;
- Crowd system by 5,1 m hydraulic cylinder;
- Advanced instrumentation;
- Reliability and safety;
- Stability and easy to handle;
- High productivity;
- Easy to transport, compact dimensions and low transport weight 39 tons;
- Mechanical and hydraulic pre-arrangement for casing oscillator (available on request);
- Crowd system by winch (available on request).

Large diameter bored pile

Max pile diameter	mm	2000
Max cased diameter	mm	1500
Max pile depth	m	61
Max torque	kNm	180
Max drilling speed (standard rotary)	rpm	30
Max drilling speed (with 3 gear high speed rotary)*	rpm	26 / 48 / 102
Spin off speed	rpm	169
Main winch line pull	kN	185
Service winch line pull	kN	75
Engine ¹	type	CAT C7 ACERT®
Max Power	kW (BHP)	224 (300) @ 2200 rpm
Cylinder crowd (Pull up/down force on kelly)	kN	180 / 122
Stroke	mm	5100
Winch crowd (Pull up/down force on kelly)	kN	189 / 180
Stroke	mm	11000
Operating weight (c/w kelly w/o tool) ²	ton	54
Transport weight (w/o kelly, rotary and counterweight)	ton	39

The nominal values are referred to 100% total efficiency. / ¹ Meeting the EPA-TIER3 emission regulations. / ² Weight is based on final configuration.

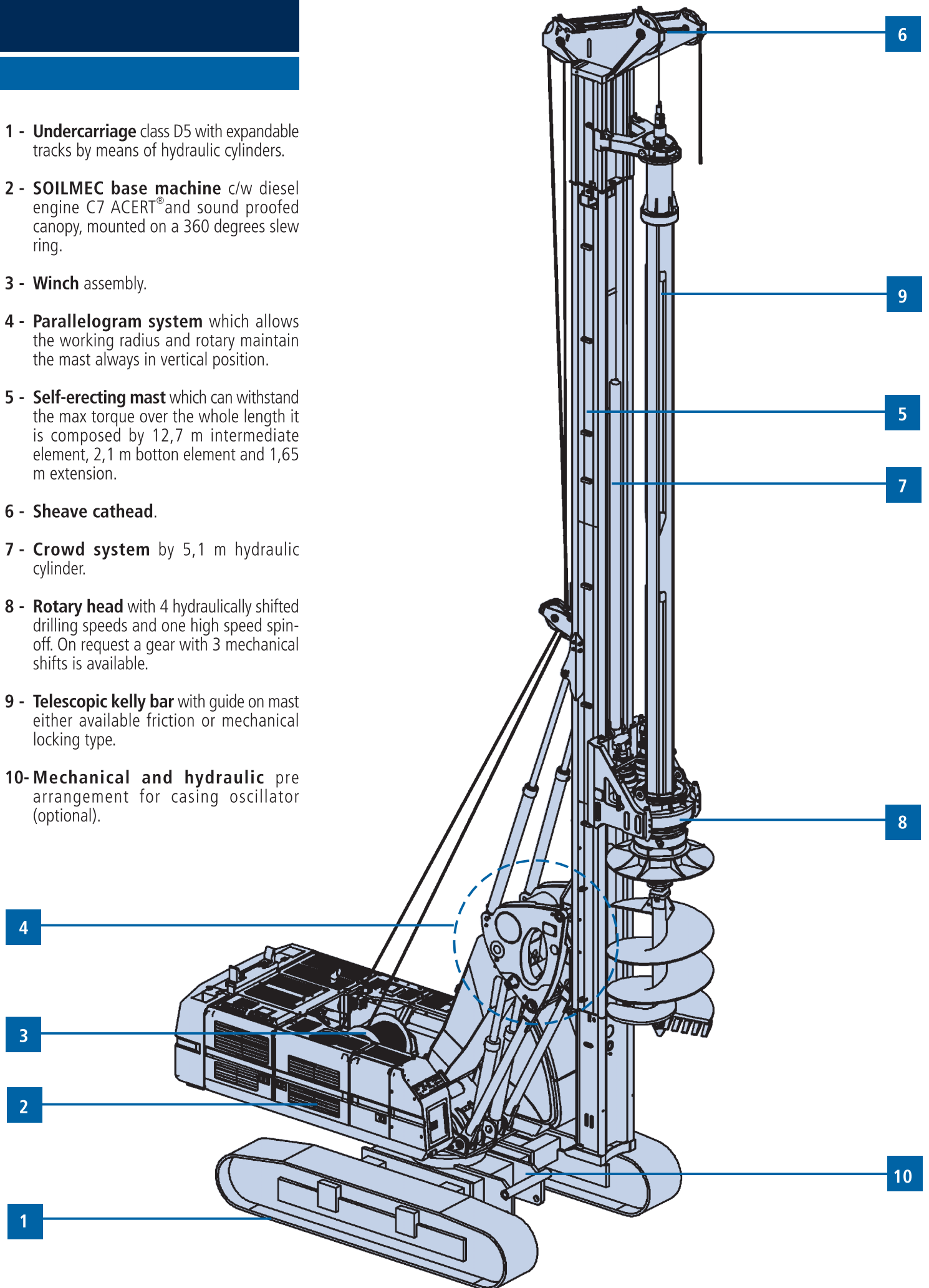
Continuous Flight Auger (CFA)

Max pile diameter	mm	750 / 1000
Max pile depth ¹	m	21 / 18
Max extraction force	kN	520
Max torque	kNm	180
Operating weight ²	ton	53

¹ Pile depth depends on sleeve length / ² Weight is based on final configuration.

* 3 gear high speed rotary		1°	2°	3°
Max drilling speed	rpm	26	48	102
Max torque	kNm	162	87	24

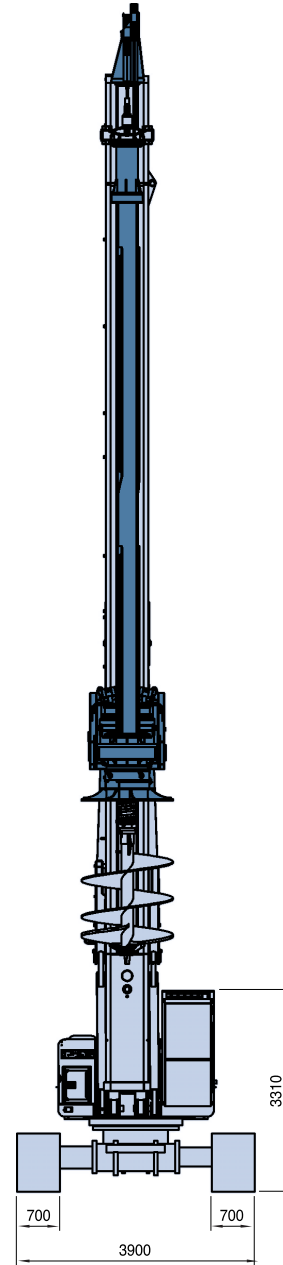
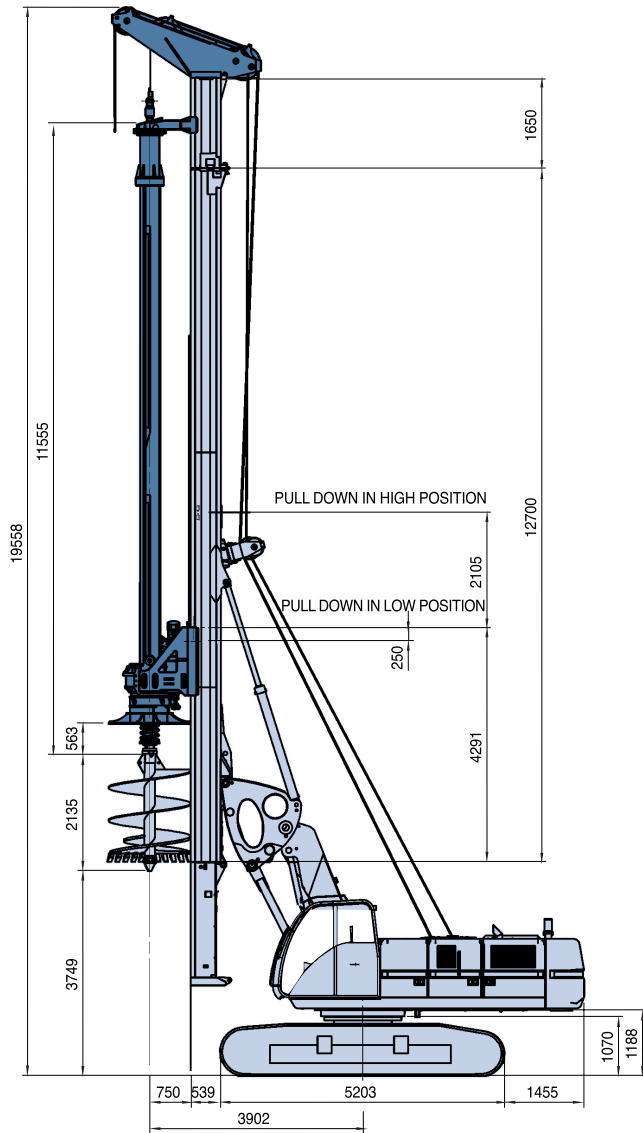
- 1 - **Undercarriage** class D5 with expandable tracks by means of hydraulic cylinders.
- 2 - **SOILMEC base machine** c/w diesel engine C7 ACERT® and sound proofed canopy, mounted on a 360 degrees slew ring.
- 3 - **Winch** assembly.
- 4 - **Parallelogram system** which allows the working radius and rotary maintain the mast always in vertical position.
- 5 - **Self-erecting mast** which can withstand the max torque over the whole length it is composed by 12,7 m intermediate element, 2,1 m bottom element and 1,65 m extension.
- 6 - **Sheave cathead.**
- 7 - **Crowd system** by 5,1 m hydraulic cylinder.
- 8 - **Rotary head** with 4 hydraulically shifted drilling speeds and one high speed spin-off. On request a gear with 3 mechanical shifts is available.
- 9 - **Telescopic kelly bar** with guide on mast either available friction or mechanical locking type.
- 10- **Mechanical and hydraulic** pre arrangement for casing oscillator (optional).



SR-50

LARGE DIAMETER BORED PILES

Working Condition



Kelly Bars

Mechanical locking kelly bar – Ø 355 mm

elements n°	length m	depth m	weight ton	H height m
4x	6,0	18,5	2,4	6,9
4x	8,0	28,5	3,0	6,9
4x	9,0	32,5	3,3	6,6
4x	10,5	38,5	3,8	5,1
4x	12,0	45,0	4,2	3,4
4x	13,0	48,0	4,6	2,6

H=Kelly stub height from ground level

Friction kelly bar – Ø 355 mm

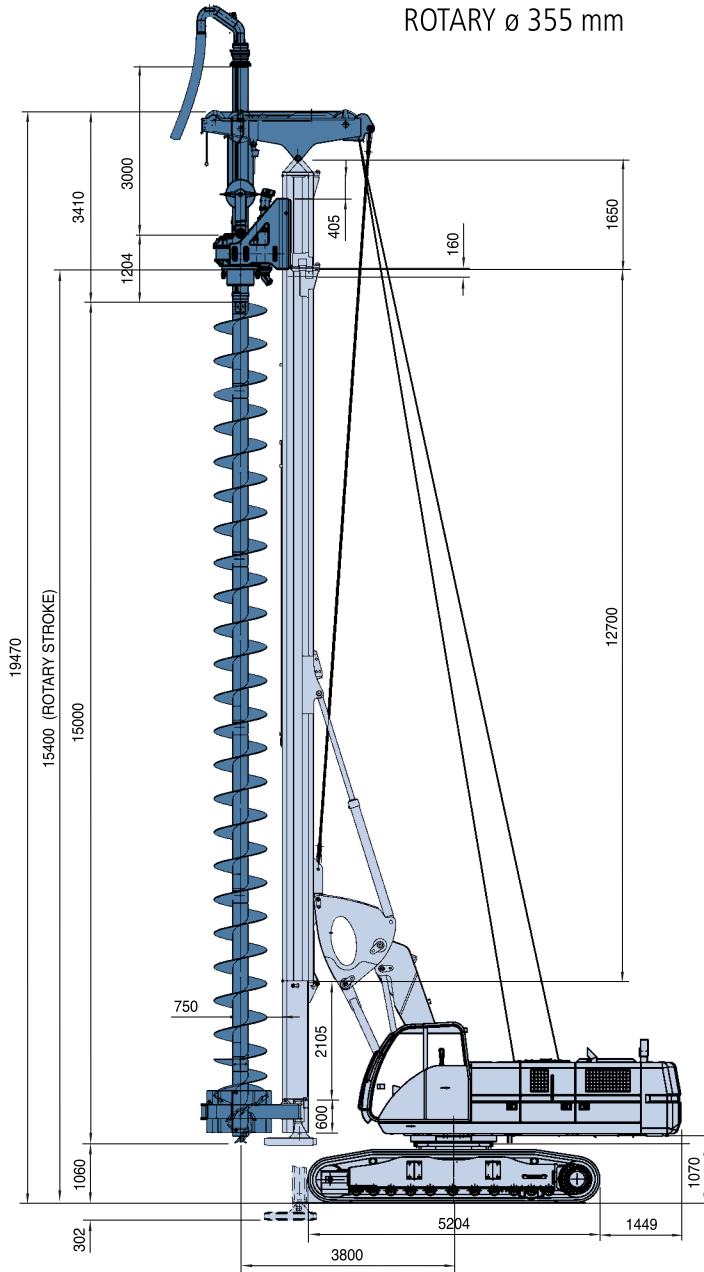
elements n°	length m	depth m	weight ton	H height m
4x	6,0	20,0	2,4	6,9
4x	9,0	33,0	3,4	6,6
4x	11,0	40,0	3,7	4,2
4x	12,0	46,0	4,2	3,4
5x	8,5	39,0	4,1	6,9
5x	9,0	41,0	4,3	6,6
5x	11,0	50,0	5,1	3,6
5x	12,0	55,0	5,5	3,8

SR-50

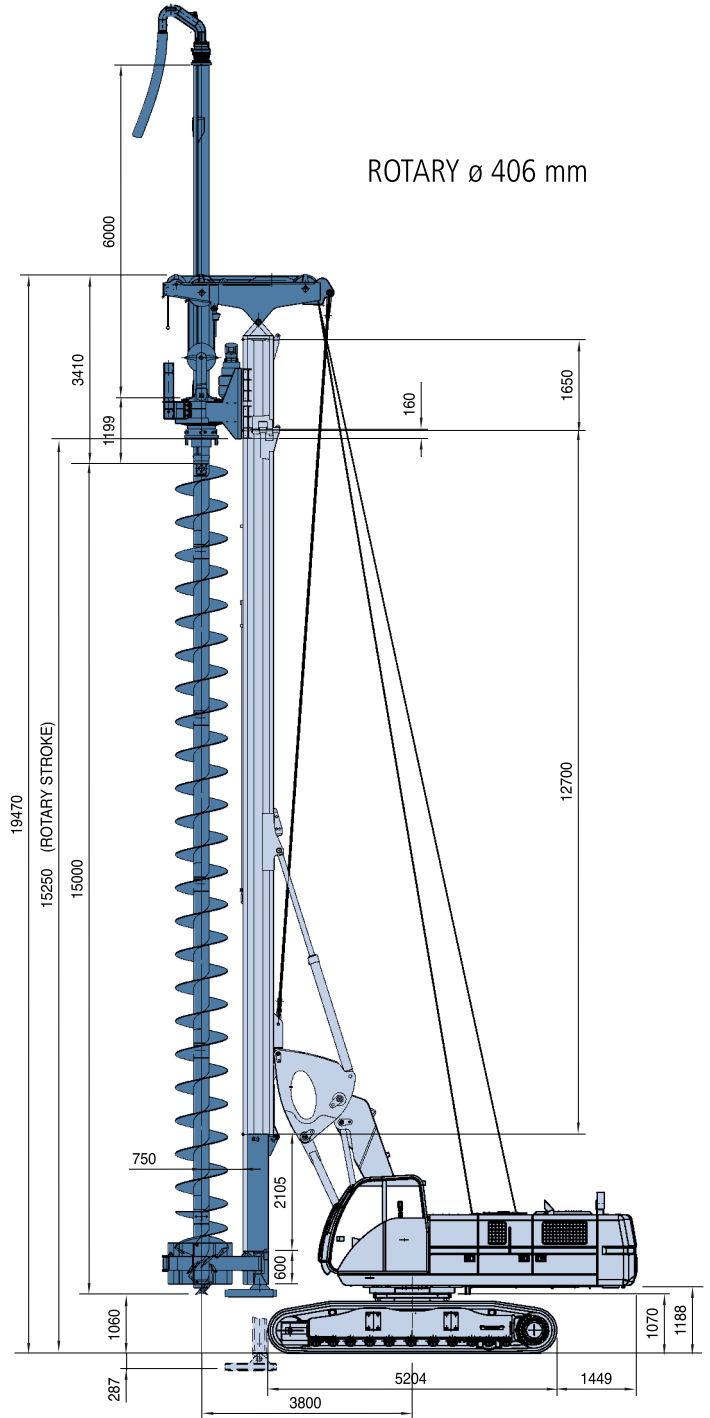
CONTINUOUS FLIGHT AUGER

Working Condition

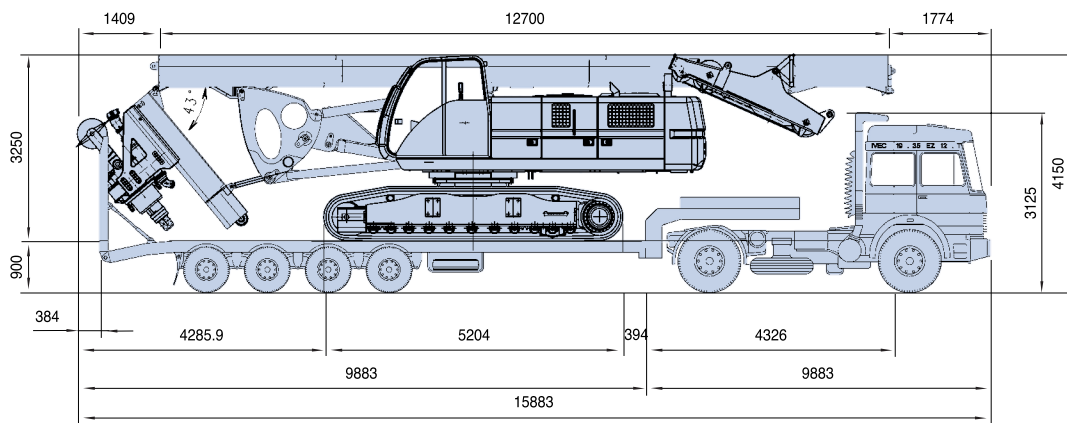
ROTARY \varnothing 355 mm



ROTARY \varnothing 406 mm



CFA Transport







SOILMEC distributes machinery and structures all over the world, supported by SOILMEC subsidiary companies and representative offices as:

SOILMEC LTD - U.K.

SOILMEC MISR S.A.E. Co. - Egypt

SOILMEC (H.K.) Limited - Hong Kong

SOILMEC JAPAN CO LTD - Japan

SOILMEC S.P.A. - Beijing Repr. Office - P.R. China

SOILMEC FAR EAST PTE.LTD - Singapore

SOILMEC EMIRATES - U.A.E.

SOILMEC GULF - U.A.E.

SOILMEC FRANCE S.A.S. - France

CERTIFIED QUALITY SYSTEM

In 1990 Soilmec was awarded with the certification of its Quality System complying with ISO 9001:2000 standards.



SOILMEC S.p.A.

Drilling and Foundation Equipment

5819, via Dismano

47023 Cesena (FC) - Italy

tel. +39-0547-319111

fax +39-0547-318548

[http:// www.soilmec.it](http://www.soilmec.it)

e-mail: soilmec@soilmec.it

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

soilmec 
Drilling and Foundation Equipment