


SR-65 EVOLUTION



soilmec 
Drilling and Foundation Equipment

This is a great story.

This is the story of machines, of million of pieces, both big and small, put together by human effort and ingenuity. Great, powerful, efficient rigs for deep foundations and shaped for your future.



This is the story of hard work, the daily toil of a team spread out across distant, almost inaccessible lands, but held together by common values and passion that knows no borders, because it's so perfectly human.

The world is our home.

Soilmec is the story of ground engineering, and the starring roles are played by machines. Efficient, safe, continually evolving, since 1969 Soilmec rigs have made their contribution to improving the quality of life in all five continents.

Every day, Soilmec rigs perform well with different soils, weather conditions, social contexts, languages, cultures and skill levels.



Our Vision.

We aim to be leader in the foundation machinery industry by developing a superior competence on combining Machines, Technologies, Software and Service into unique solutions tailored on customer needs:



Soilmec the Ground Engineering Global Solution Provider

1995

R-618

1996

R-622

2004

R-625

2009

SR-65

2018

SR-65 EVO



Vertical
S
T

SR-65 EVO.
The simplicity
of great performance.



SR-65 is inspired by designers vision, the desire to evolve and the Italian instinct for innovation.

This is how a rig was born. With best performance in kelly bar and continuous flight auger (CFA).

The transport with kelly bar fitted on the machine guarantees the fastest rig up of its category.

Designed to increase the profitability of the jobsite thanks to the perfect compromise between power and efficiency.

High safety, best comfort and lowest noise level in its class.



EVO

EVOLUTION

Functionality:

it can meet specific piling requirements.

Designed for bored piles with Kelly bar and CFA.



ADV

ADVANCED

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.



HIT

HIGH TECHNOLOGY

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.

Designed to be a leader. Built for outstanding. Segmental Casing performance.

The harmony of the new rotary design combined with the highest extraction force and highest clearance between the soil and tool make the new SR-65 suitable for all your needs and especially in segmental casing technology.

The new winch with variable displacement motor guarantees a very high speed of the rotary movement during the recoupling casing phase.

High speed and high precision of the turret motor guarantee the right alignment with the hole during the drilling phases (on request the new Soilmec automatic return system to centre hole is available).

All SR-65 rigs include the possibility to change the drilling axis clearance from 780 mm (31 in) to 1030 mm (40.5 in) thanks to an innovative system (patent pending).

Simply, safely and without additional equipment.

Every detail has been designed to offer you the best performance.

The above features are unique in its rig class.





Unique.
Immediate.



It always seems impossible until it's done.
Nelson Mandela



Transport

Strong and smart.

The challenge was to maintain a high and unique efficiency without giving up low fuel consumption and emissions.

To achieve these results, SR-65 has been equipped with a complete package of innovations including the new “start and slow” system and the new control of the radiators and its air flows.

All configurations have a continuous fan control system that automatically adjusts the speed according to needs, reducing fuel consumption and noise.

The SR-65 whole project aims at reducing noise emissions and easing maintenance by means of:

hydraulically driven radiators, new canopy design in the area close to the engine, optimization of the sound-absorbing materials, special care in the air flow controls and specific attention on the parts subject to vibrations.

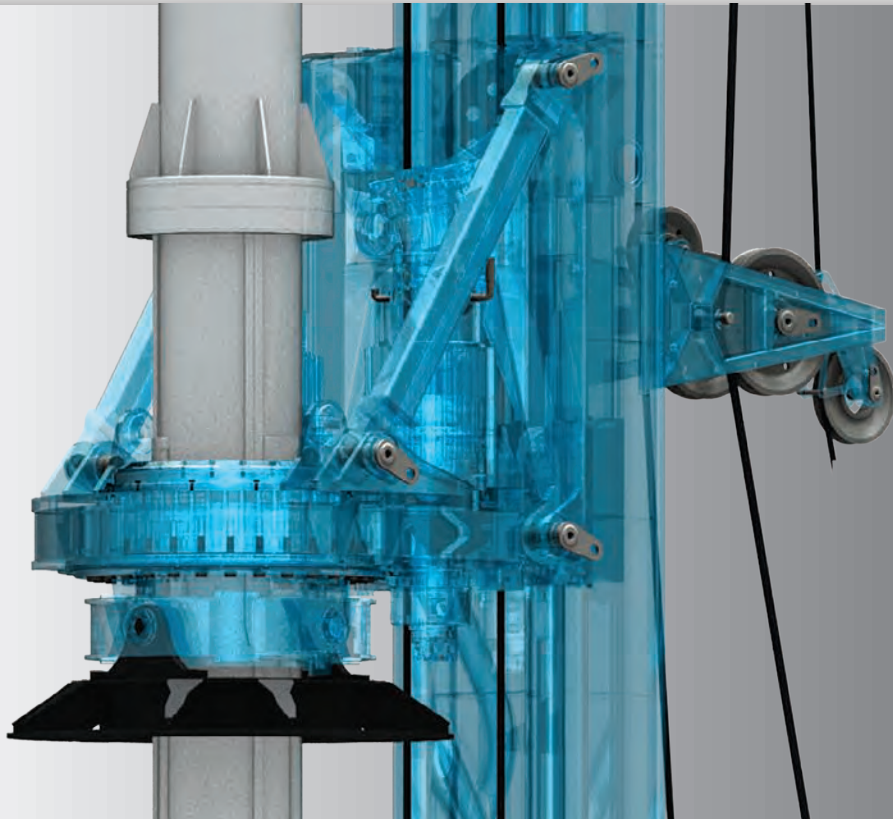
The combination of all these solutions guarantees the lowest noise in its rig class with values LwA and LpA of 105 db and 76 db for all available engines.





—maine

Flexible power at the heart of your jobsite.



All the available power is transferred to the drilling tool ensuring up to almost 260 kNm (191766 lbf*ft) @ 7 rpm of maximum intermittent torque.

Each rotary of the SR-65 is complete with the new system for variation of drilling axis clearance, from 780 mm (30.7 in) to 1030 mm (40.5 in).

Moreover the Soilmec "spin-off" device is able to reach a rotation speed of 135 rpm; this system guarantees an effective and quick discharge of the tool reducing drilling times.

Many more accessories are available in order to optimize your daily work.



Individuality, quality and technology.



The ergonomic H-cab model embraces the operator. A unique solution in this category (1050 mm /41.6 in wide) in which several accessories facilitate the work of the operator. Fully adjustable seat, new air conditioner system and sliding door are some of the accessories you can find inside Soilmec cab.

The large windows are designed to improve visibility and brightness improving the general job site safety.

Adding the package of 4 cameras with a monitor, has the feeling of full awareness of all the surrounding environment.

Not just a workplace, but a real control center thanks to the integration of the DMS system: the Soilmec control system allows you to monitor the performance of the rig and manage all drilling operations with a very simple interaction thanks to the 12" touch screen color monitor.



POWER

Your Soilmec rigs and your jobsite... all in your hands.

Total control through the most advanced monitoring system in foundation field.

Everything under control wherever you are.

DMS, Drilling Mate System, is the control center of your job site and Soilmec drilling rigs.

In 2004, Soilmec was the first manufacturer in the world to develop a system for the global control of the drilling rig and of the production processes.

DMS is available in each Soilmec rig and you can have 3 different packages that allow you to have the best possible control of your activities.



DMS on board

It is the heart of the rig able to monitor all the drilling phases directly from the operator's cab. The system consists of a multilingual touch screen display fitted on an adjustable arm. It is designed to display in real time all the information related to the drilling phases.

DMS manager 4.0

Soilmec cloud-running application for remote, centralized supervision of the rig fleet and productivity in real time thanks to IoT technology.

DMS PC

Licensed software that displays and processes the data acquired by "DMS On Board".

Control



Supporting you all the way.

Technical
support

Original
spares

Training

Auditing

Maintenance
service contracts

DMS
control
center



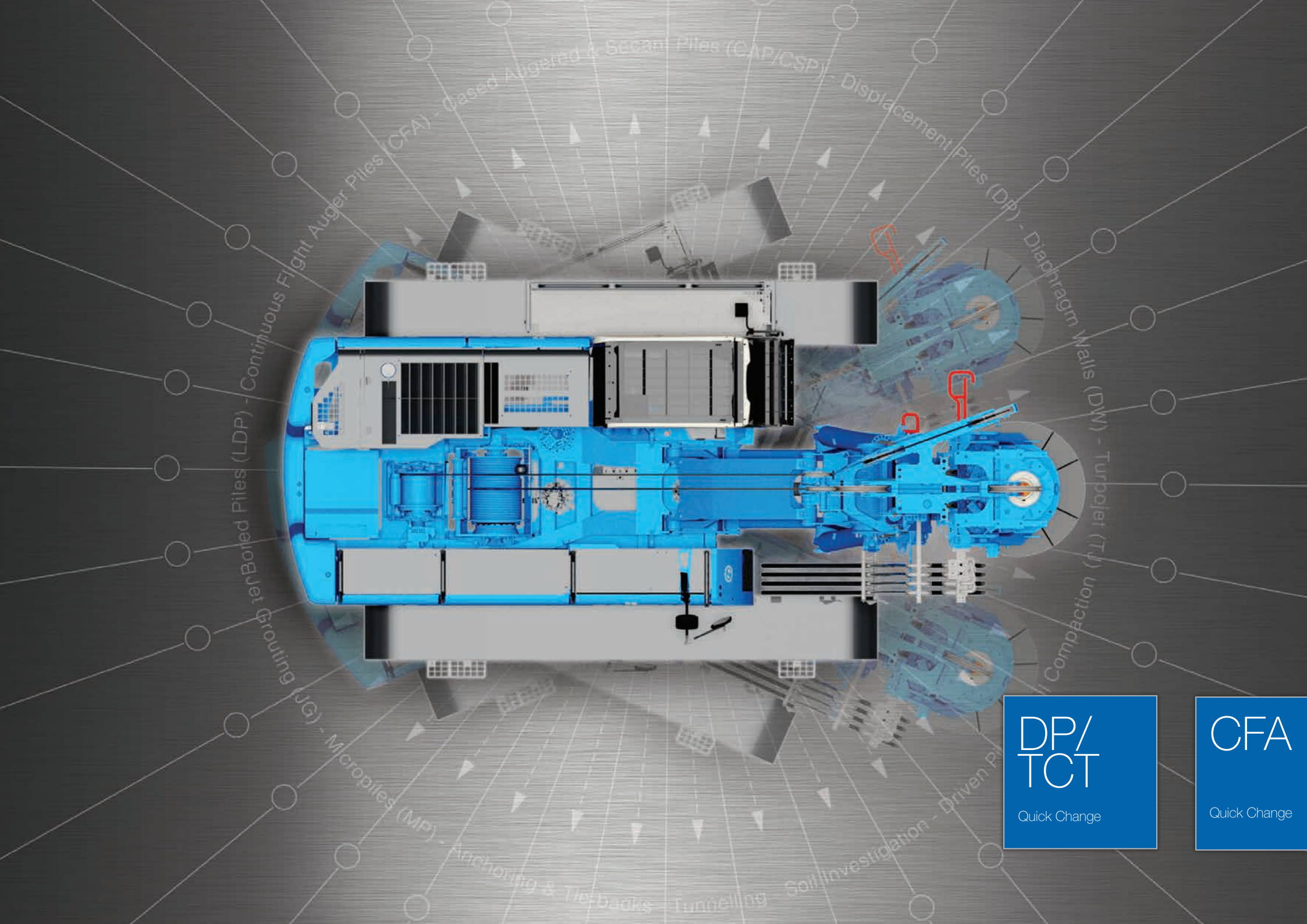
Environment starts from safety.

As always, one of the main drivers of our projects is safety. For this reason every Soilmec equipment can be purchased with the CE EN16228 certification package which includes all accessories / devices to ensure the highest level of accessibility and safety in accordance with European standards.

Each machine under goes the most stringent functional and performance tests: all loads are detected and compared with the expected values to guarantee the highest quality in production.

The canopies are equipped with the new hi-tech soundproofing systems, special interior design and new airflow control excellent noise reduction to 105 db LwA and 76 db LpA.





Continuous Flight Auger Piles (CFA) - Cased Augered - Secant Piles (CAP/CSP) - Displacement Piles (DP) - Diaphragm Walls (DW) - Turcolet (TJ) - Compaction (r)

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DP/
TCT
Quick Change

CFA
Quick Change

SR-65. A world of solutions with the same philosophy.

Versatility means rapid conversion into all technologies you need. Among the many packages available, SR-65 offers 2 different types of continuous auger conversion: the first in order to have a quick and fast transformation. In a few steps to transform your kelly bar rig into CFA 2nd line pull. The second if you need to set up your machine with the deepest CFA in its class: up to 26 m (85.3 ft) drilling with auger cleaner and sleeve extension.

Low Head Room (LHR) package is also available on SR-65. With its innovative modular mast, this new kit allows mast minimum heights (8.5 m / 28 ft maximum height) and at the same time considerable drilling depth (up to 21 m / 69 ft with friction kelly and mast extension).

Displacment technology can reach the maximum drilling depth of 28,5 m (93.5 ft) with 600 mm (23.6 in) drilling tools; SR-65 can be setted with or without lattice boom extension to give you the best solution you need.

LDP

Winch Crowd System (WCS)

LDP

Crowd Cylinder System (CCS)

LHR

Crowd Cylinder System (CCS)

CFA

4-line pull

DP/
TCT

4-line pull

Versatility

Our standard... is outstanding.



Electrical system. Completely redesigned with most modern technologies that follow the solutions adopted in the automotive world.

Interchangeable rotary sleeve. Easy and fast maintenance. High compatibility with the kelly bars of other Soilmec rigs.

Main winch. The drum design and the high performance of main winch allow to drill up to 78 m (255.9 ft) using only 2 layers.

Winch crowd system. Variable displacement on winch crowd system motor. **Speed or force?** SR-65 automatically senses and adjusts to what you need.

Power where is required. In WCS version SR-65 has the highest real extraction force in its class under the rotary head.

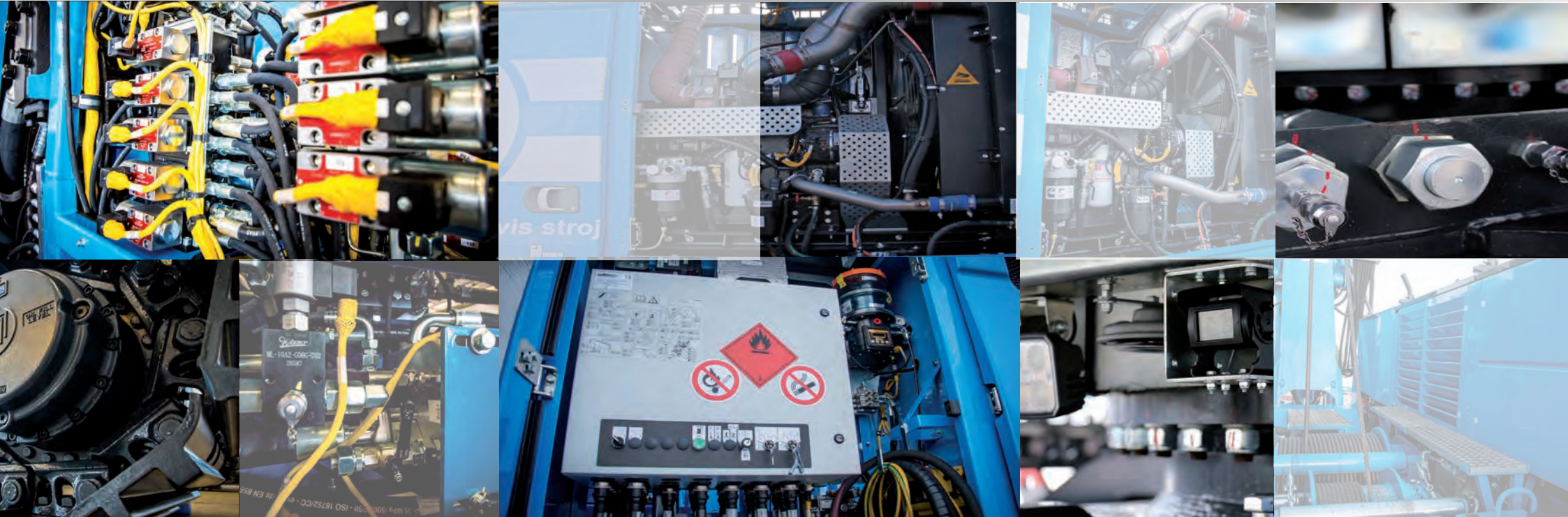
Cathead. One cathead for 2 crowd systems. The new smart design of SR-65 allows high versatility to quickly convert the rigs from cylinder crowd to winch crowd system.

Drilling axis. Adjustable system (patent pending) designed for changing the drilling axis in just few minutes. Innovation at your service.

Control. DMS system standard on every SR-65.

Versatility. SR-65 can be transformed into different technologies keeping many common elements... reducing cost and downtime.

Choose according to your needs.



Anti-slack rope system (Patent Pending). The system is managed by the DMS ON BOARD and suggests when to slow down the kelly bar descent to avoid collisions with the bottom of the hole and excessive unwinding of the main rope.

CFA autorotary. The operator can activate this function by a dedicated pedal or by a joystick.

Automatic return to centre hole. Designed to speed up the discharging phase.

Self-mounting counterweight package. By this device SR-65 can reach minimum 49 ton weight (110.000 lb) in transport condition (with out kelly bar).

Automatic Greasing package. You do not have to worry of when greasing. SR-65 takes care of itself automatically.

Segmental Modular Mast. SR-65 offers the possibility to have a modular mast. The conversion into the Low Head Room parameters version is easy and fast. The minimum height reached is 8,5 m (27.9ft).

CFA /DP technology. Quick and easy package to convert the rig from LDP to CFA/DP.

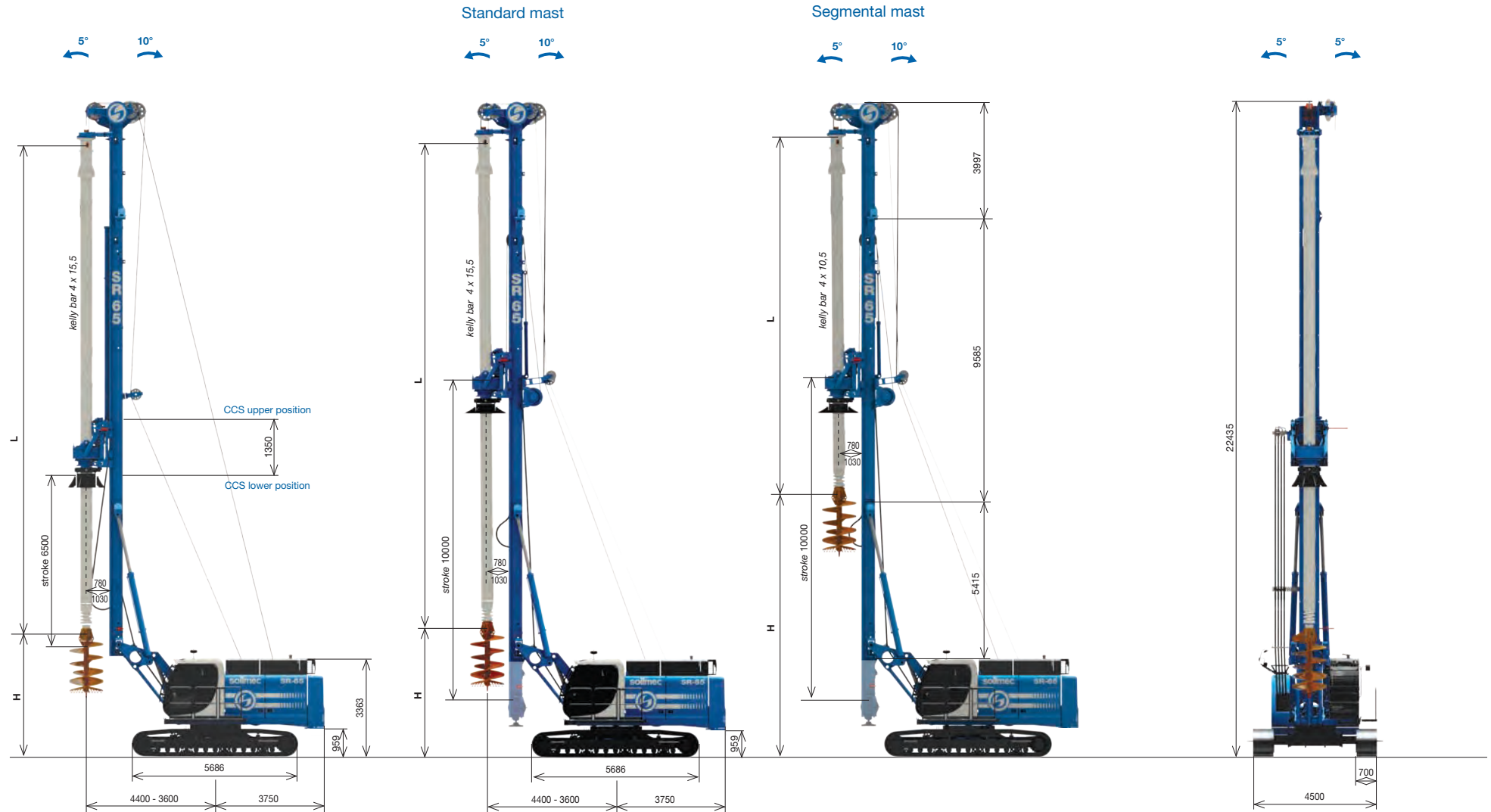
Quick rotary dismounting kit. The package includes all the elements that allow a fast rotary dismounting.

CFA autodrilling. Automatic device for CFA drilling operations in order to control and optimize the drilling parameters.

Large Diameter Piles

Cylinder Crowd System

Winch Crowd System



LDP - Large Diameter Piles - CCS version

Operating weight w/o kelly bar	56200 kg*	123900 lb*
Max pile diameter along mast	1500 mm	59 in
Max pile diameter c/w increased drilling axis along mast	2000 mm	79 in
Max pile diameter w/o lower mast section, tool below mast	3000 mm	118 in
Max pile depth-friction kelly	77,9 m	256 ft
Max pile depth-locking kelly	62,5 m	205 ft

* For T4F version. For T3 version weight reduced by 500 kg (1102 lb) / For segmental mast version weight increased by 870 kg (1918 lb)

LDP - Large Diameter Piles - WCS version

Operating weight w/o kelly bar	58500 kg	128970 lb
Max pile diameter along mast	1400 mm	55 in
Max pile diameter c/w increased drilling axis along mast	1900 mm	75 in
Max pile diameter w/o lower mast section, tool below mast	3000 mm	118 in
Max pile depth-friction kelly	77,7 m	255 ft
Max pile depth-locking kelly	62,3 m	204 ft

* For T4F version. For T3 version weight reduced by 500 kg (1102 lb) / For segmental mast version weight increased by 720 kg (1587 lb)

Kelly bars for LDP

	Kelly type	Kelly dims.	Drilling Depth **		Weight		L Length		H CCS low pos		H CCS high pos		WCS	
			m	ft	ton	t (US)	m	ft	m	ft	m	ft	m	ft
3 parts	BL HD	3 x 9	24.1	79.1	4,8	5.3	10,28	33.7	7.9	25.9	9.2	30.2	10.7	35.1
	BL HD	3 x 11,5	31.3	102.7	5,9	6.5	12,54	41.1	7.9	25.9	8.4	27.6	8.4	27.6
	BL HD	3 x 13,5	37.3	122.4	6,7	7.4	14,58	47.8	6.4	21.0	6.4	21.0	6.4	21.0
	BL HD	3 x 15,5	43.4	142.4	7,5	8.3	16,61	54.5	4.3	14.1	4.3	14.1	4.3	14.1
	BL HD	3 x 16,5	46.7	153.2	8,0	8.8	17,70	58.1	3.2	10.5	3.2	10.5	3.2	10.5
4 parts	BL HD	4 x 7,5	24.5	80.4	4,3	4.8	8,32	27.3	7.9	25.9	9.2	30.2	11.6	38.1
	BL HD	4 x 9	32.1	105.3	5,0	5.6	10,18	33.4	7.9	25.9	9.2	30.2	10.8	35.4
	BL HD	4 x 10,5	37.3	122.4	5,7	6.3	11,44	37.5	7.9	25.9	9.2	30.2	9.5	31.2
	BL HD	4 x 11,5	41.3	135.5	6,2	6.8	12,54	41.1	7.9	25.9	8.4	27.6	8.4	27.6
	BL HD	4 x 13,5	49.6	162.7	7,1	7.9	14,57	47.8	6.4	21.0	6.4	21.0	6.4	21.0
	BL HD	4 x 15,5	57.9	190.0	8,1	8.9	16,59	54.4	4.4	14.4	4.4	14.4	4.4	14.4
	BL HD	4 x 16,5	62.3	204.4	8,5	9.4	17,70	58.1	3.2	10.5	3.2	10.5	3.2	10.5
	FR HD	4 x 10,5	37.1	121.7	5,7	6.3	11,44	37.5	7.9	25.9	9.2	30.2	9.5	31.2
	FR HD	4 x 11,5	41.3	135.5	6,2	6.8	12,57	41.2	7.9	25.9	8.4	27.6	8.4	27.6
	FR HD	4 x 13,5	49.8	163.4	7,1	7.9	14,57	47.8	6.4	21.0	6.4	21.0	6.4	21.0
5 parts*	FR HD	4 x 15,5	56.9	186.7	8,1	8.9	16,66	54.6	4.3	14.1	4.3	14.1	4.3	14.1
	FR HD	4 x 16,5	62.5	205.1	8,5	9.4	17,70	58.1	3.2	10.5	3.2	10.5	3.2	10.5
	FR HD*	5 x 10,5	46.4	152.2	6,1	6.8	11,32	37.1	7.9	25.9	9.2	30.2	9.6	31.5
	FR HD*	5 x 11,5	51.8	169.9	6,6	7.3	12,44	40.8	7.9	25.9	8.5	27.9	8.5	27.9
	FR HD*	5 x 12	53.7	176.2	6,8	7.5	13,02	42.7	7.9	25.9	7.9	25.9	7.9	25.9
	FR HD*	5 x 13,5	62.2	204.1	7,6	8.3	14,45	47.4	6.5	21.3	6.5	21.3	6.5	21.3
	FR HD*	5 x 14,5	66.2	217.2	8,1	8.9	15,33	50.3	5.6	18.4	5.6	18.4	5.6	18.4
	FR HD*	5 x 15,5	71.9	235.9	8,5	9.4	16,66	54.6	4.5	14.8	4.5	14.8	4.5	14.8
FR HD*	5 x 16,5	77.7	254.9	9,0	9.9	17,58	57.7	3.4	11.2	3.4	11.2	3.4	11.2	

* Rotary head derate

** In CCS version w/o lower mast element, drilling depth reduced by -1300 mm (4.26 ft).

In WCS version, drilling depth reduced by -200 mm (0.65 ft).

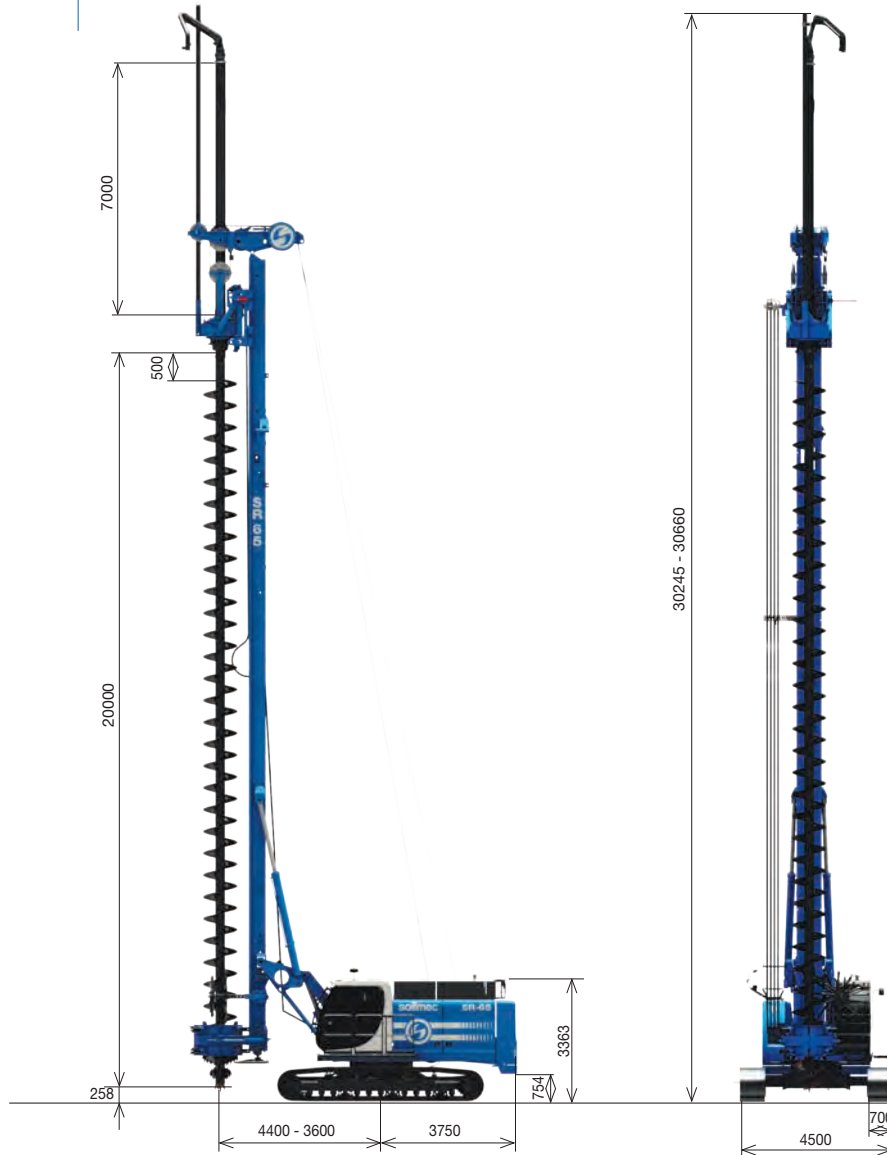
In WCS version w/o lower mast element, drilling depth reduced by -1600 mm (5.24 ft).

With kelly c/w stub 200x200, depth reduced by -200mm (0.65 ft).

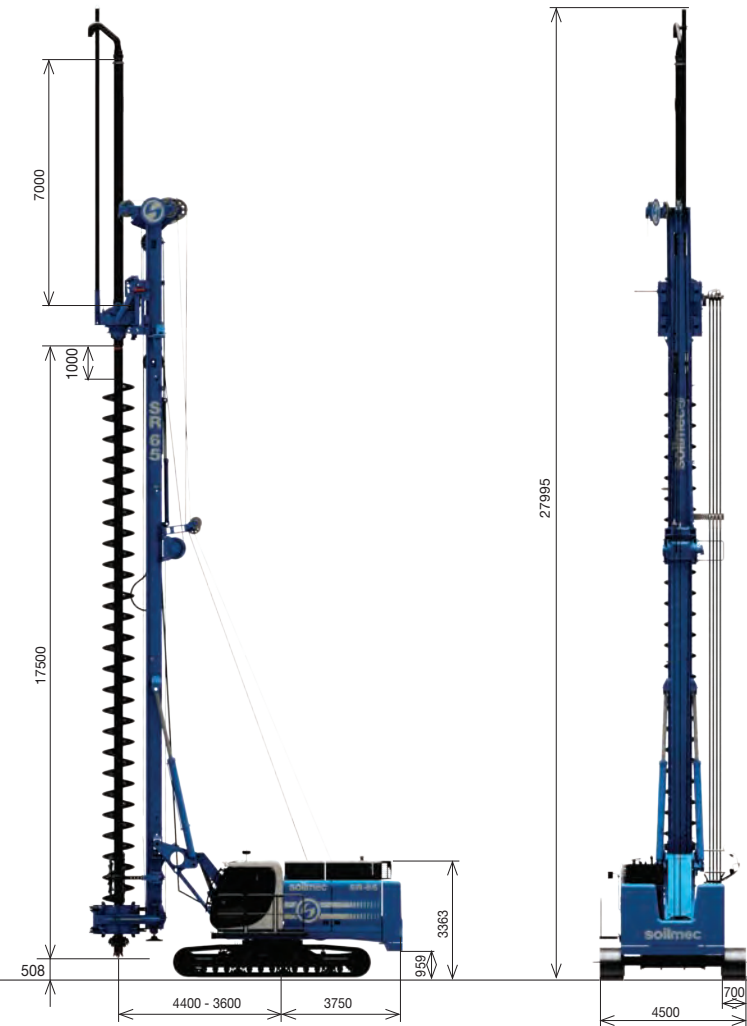
Drilling depth with tool 1500 mm (4.9 ft) long.

CFA applications

4-line pull

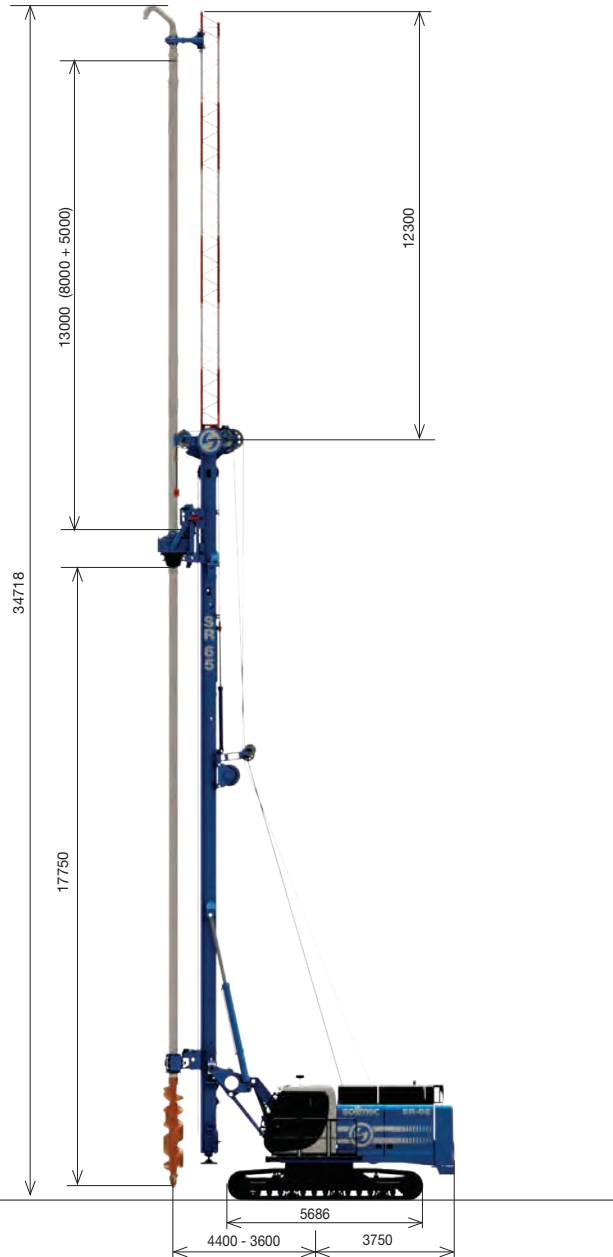


Quick change



DP applications

Quick change



CFA - Continuous Flight Auger - 4-line pull

Operating weight (c/w 7 m sleeve ext., w/o auger)*	61200 kg	134922 lb
Max pile diameter	1200 mm	47.24 in
Max pile depth with 7 m sleeve extension	25,9 m	85 ft
Max pile depth with hydraulic auger cleaner, with 7 m sleeve extension	24,6 m	81 ft
Extraction force	620 kN	139379 lbf
Crowd force on auger (on request)	100 kN	22481 lbf

* For **segmental mast version** weight increased by 870 kg (1918 lb)

CFA - Continuous Flight Auger - Quick change

Operating weight (c/w 7m sleeve ext., w/o auger) *	60500 kg	133378 lb
Max pile diameter	1200 mm	47.24 in
Max pile depth with 7 m sleeve extension	22,5 m	74 ft
Max pile depth with hydraulic auger cleaner, with 7 m sleeve extension	21,2 m	70 ft
Extraction force	550 kN	123643 lbf
Crowd force on auger	330 kN	74186 lbf

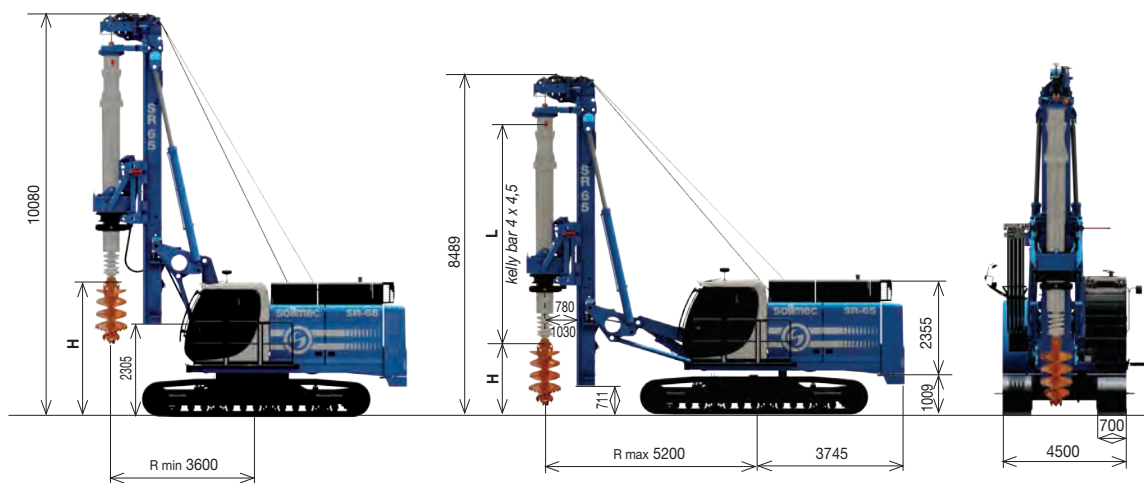
* For **segmental mast version** weight increased by 720 kg (1587 lb)

DP - Displacement Pile - Quick change

Operating weight (c/w lattice ext, w/o DP string)	60700 kg	133820 lb
Max pile diameter DP/TCT	600 / 800 mm	23.62 / 31.50 in
Max pile depth w/o lattice boom extension	23,5 (15,5+8) m	77 ft
Lattice mast extension	12,3 m	41 ft
Max pile depth c/w lattice boom extension	28,5 m	93.5 ft

LHR

Low Head Room



LHR - Large Diameter Piles CCS version

Operating weight w/o kelly bar*	52900 kg	116624 lb
Min / Max operating height**	8,5 / 10 m	28 / 33 ft
Cylinder crowd system stroke	2500 mm	98 in
Crowd force pull (down/up)	140 / 280 kN	31473 / 62945 lbf
Max pile diameter along mast	1500 mm	59 in
Max pile diameter c/w increased drilling axis along mast	2000 mm	79 in
Max pile diameter w/o lower mast section, tool below mast	3000 mm	118 in

* For 1,5 m (5 ft) mast extension version weight increased by 650 kg (1433 lb)

** For 1,5 m (5 ft) mast extension version min/max operating height become 10 / 11,6 m (33/38 ft)

Drawing are not to scale All technical data are purely indicative and subject to change without notice

Kelly bar for LHR

Standard version - H max 8,5 m / 28 ft

Kelly type	Kelly dimens.	Weight		L Length		R max Depth		H clearance		R min Depth		H clearance	
		ton	t(US)	m	ft	m	ft	m	ft	m	ft	m	ft
BL HD	4 x 4,5	3,0	3.3	5,48	18.0	13,2	43.3	1,64	5.4	11,6	38.1	3,23	10.6
BL HD	4 x 5	3,2	3.5	6,08	19.9	15,6	51.2	1,04	3.4	14	45.9	2,64	8.7
BL HD	4 x 5,5	3,4	3.7	6,58	21.6	17,6	57.7	0,54	1.8	16	52.5	2,14	7.0
FR HD	5 x 4,5	3,2	3.5	5,48	18.0	17,1	56.1	1,64	5.4	15,5	50.9	3,23	10.6
FR HD	5 x 5	3,5	3.9	6,08	19.9	20	65.6	1,04	3.4	18,4	60.4	2,64	8.7
FR HD	5 x 5,5	3,7	4.1	6,58	21.6	22,5	73.8	0,54	1.8	20,9	68.6	2,14	7.0

Mast extended version - H max 10 m / 23 ft with CCS in low position

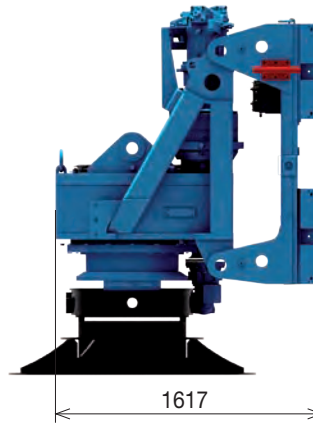
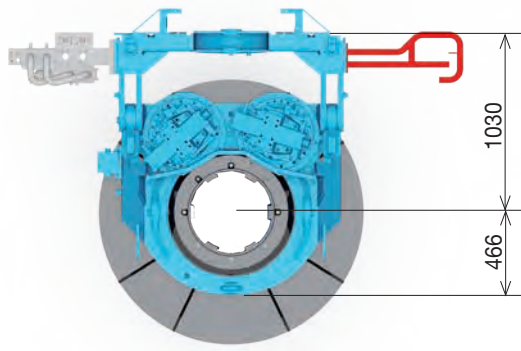
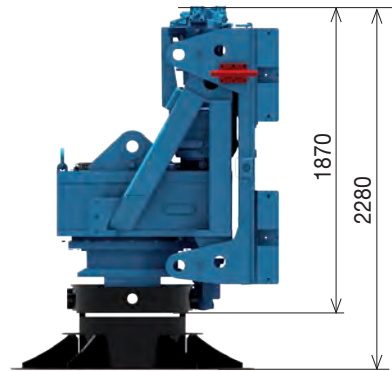
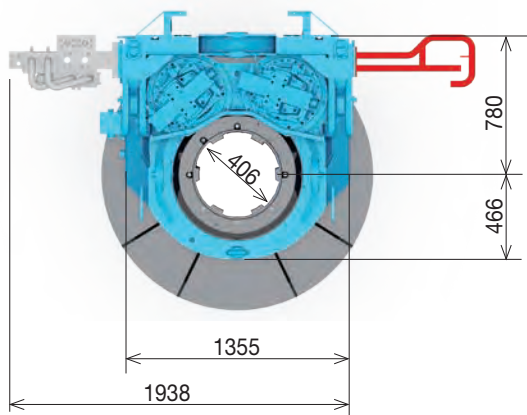
Kelly type	Kelly dimens.	Weight		L Length		R max Depth		H clearance		R min Depth		H clearance	
		ton	t(US)	m	ft	m	ft	m	ft	m	ft	m	ft
BL HD	4 x 6	3,7	4.1	6,98	22.9	19,2	63.0	1,64	5.4	17,6	57.7	3,23	10.6
BL HD	4 x 6,5	3,9	4.3	7,58	24.9	21,6	70.9	1,04	3.4	20	65.6	2,64	8.7
BL HD	4 x 7	4,1	4.5	8,08	26.5	23,6	77.4	0,54	1.8	22	72.2	2,14	7.0
FR HD	5 x 6	4,0	4.4	6,98	22.9	24,6	80.7	1,64	5.4	23	75.5	3,23	10.6
FR HD	5 x 7	4,4	4.9	8,08	26.5	30	98.4	0,54	1.8	28,4	93.2	2,14	7.0

Mast extended version - H max 10 m / 23 ft with CCS in high position

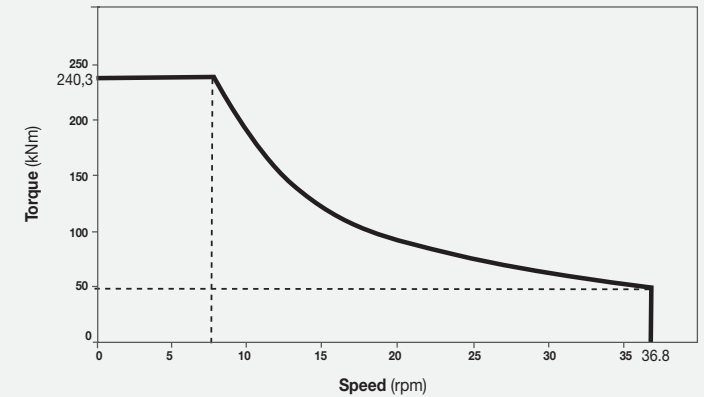
Kelly type	Kelly dimens.	Weight		L Length		R max Depth		H clearance		R min Depth		H clearance	
		ton	t(US)	m	ft	m	ft	m	ft	m	ft	m	ft
BL HD	4 x 4,5	3,0	3.3	5,48	18.0	14,1	46.3	3,14	10.3	12,5	41.0	4,73	15.5
BL HD	4 x 5,5	3,4	3.7	6,58	21.6	16,1	52.8	2,04	6.7	14,5	47.6	3,64	11.9
FR HD	5 x 5	3,5	3.9	6,08	19.9	18,5	60.7	2,54	8.3	16,9	55.4	4,14	13.6
FR HD	5 x 5,5	3,7	4.1	6,58	21.6	21	68.9	2,04	6.7	19,4	63.6	3,64	11.9

Rotary

Increased drilling axis



Rotary torque diagram



The new rotary design allows reducing the transport height and at the same time guarantees the flexibility of using the same 406 mm/16 in Kelly bar of other Soilmecc rigs.

The easy replacement of the rotary sleeve and pads have been purposely designed for the specific needs of the job site.

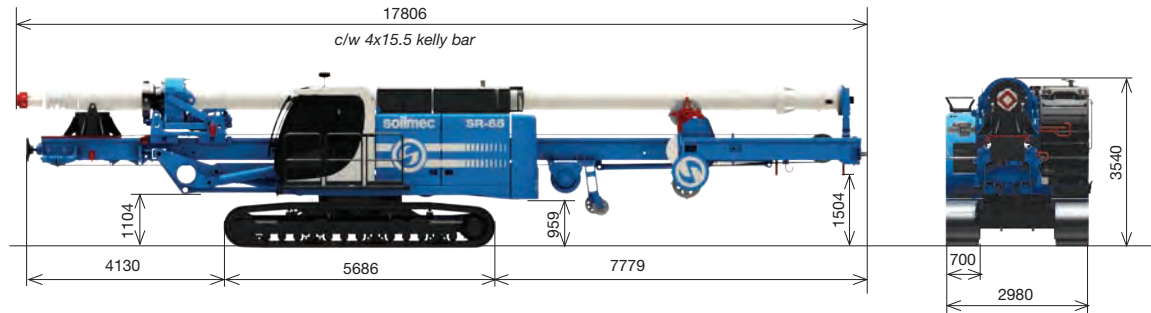
The rotary implements with a new device that allows the automatic control of the motor displacement. This optimizing the drilling speed and the productivity in every phase.

Rotary		
Type	Spin-off type	Spin-off type
Max torque (intermittent)	258,5 kNm	190657 lbf*ft
Rated torque	240 kNm	177012 lbf*ft
Max drilling speed	36,8 rpm	36.8 rpm
Spin off speed	135 rpm	135 rpm
Weight (w/o cradle, casing flange and cardan joint)	~ 3250 kg	~ 7165 lbs

Transport

Dimensions and Weights

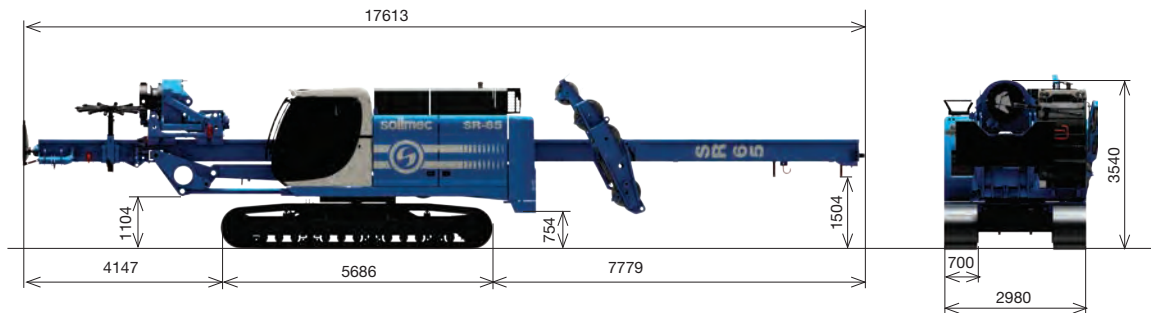
Winch Crowd System



Transport standard LDP version	CCS		WCS	
Weight with standard mast	63600 kg	140214 lbs	65800 kg	145064 lbs
Weight with segmental mast	64470 kg	142132 lbs	66520 kg	146651 lbs
Length c/w kelly bar <14 m (46 ft)	17600 mm	57.7 ft	17600 mm	57.7 ft

Includes base carrier Tier IV, complete rotary, counterweight, kelly bar 4x13,5m, w/o tool.

4-line pull



Transport standard CFA version	4-line pull		Quick change	
Weight with standard mast	58300 kg	140214 lbs	57600 kg	145064 lbs
Weight with segmental mast	59170 kg	130447 lbs	58320 kg	128573 lbs
Length	17613 mm	57.8 ft	17600 mm	57.7 ft

Includes base carrier Tier IV, complete rotary, w/o auger, w/o sleeve extension, w/o hydraulic guide, w/o auger cleaner

Transport

The impossible has been realized by the talent of our engineers. We have been able to design a rig which goes beyond all the limits in its class.

All SR-65 can be transported in a single load, improving productivity and efficiency even before starting to drill.

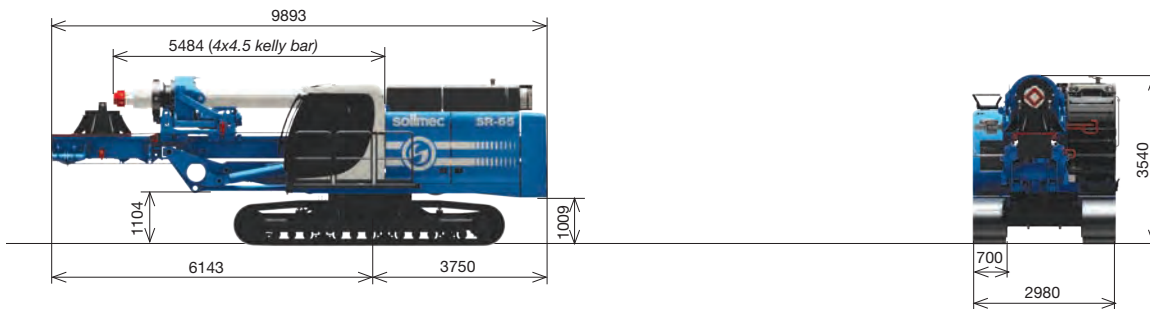
Transport weight in single load with kelly bar mounted: 64 tons (142,000 lb).

The maximum height while transported on truck is 4400 mm (14.5 ft).

Thanks to a special optional, the new SR-65 can also reach the minimum weight of 49.9 tons (110,000 lbs) by removing the counterweight and the kelly bar which does not need any auxiliary lifting equipment.

Soilmec is well aware of the job site needs and of importance of the start-up times.

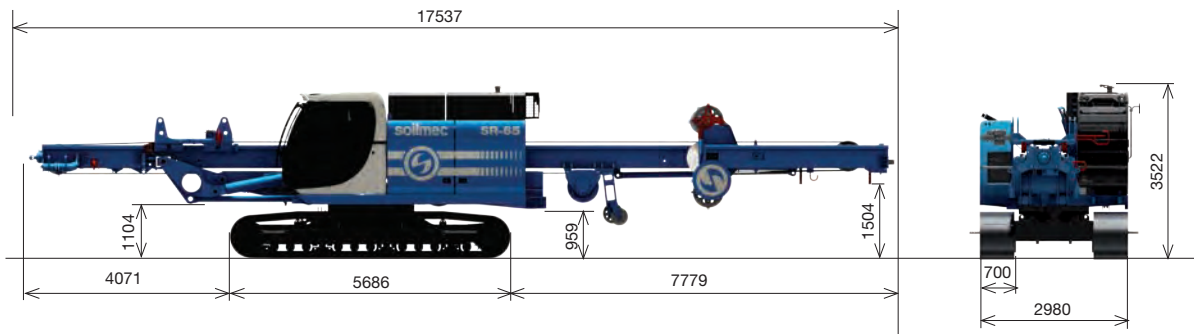
The SR-65 is designed to ensure the machine starts drilling operations (in standard configuration) 30 minutes from the arrival at your job site.



Transport standard LHR version	8,5 m version		10 m version	
Weight	55900 kg	123238 lbs	56550 kg	124671 lbs
Min. weight *	47200 kg	104058 lbs	47850 kg	105491 lbs
Length	9893 mm	32.5 ft	9893 mm	32.5 ft

Includes base carrier Tier IV, complete rotary, counterweight, kelly bar 4x4,5m, w/o tool.

** w/o kelly and kelly guide, w/o rotary, w/o rotary cradle, c/w counterweight*

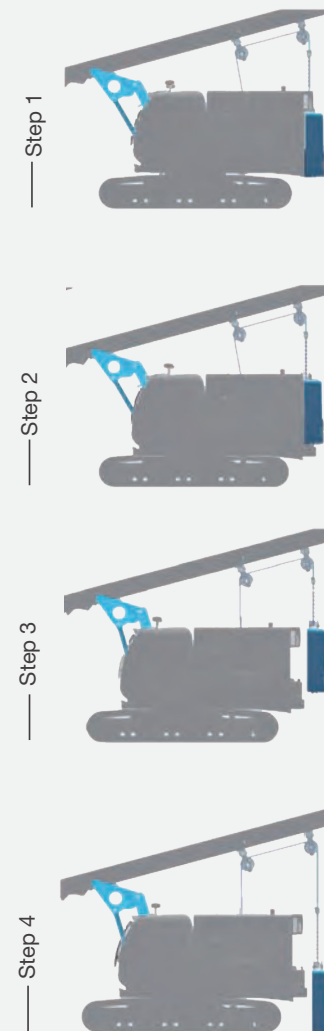


Transport special version	CCS		WCS	
Weight with standard mast	47700 kg	105160 lbs	49850 kg	109900 lbs
Weight with segmental mast	48570 kg	107078 lbs	47850 kg*	105491 lbs*
Length	17537 mm	57.5 ft	17600 mm	57.7 ft

Includes base carrier Tier IV and rotary, w/o counterweight, w/o kelly bar, w/o casing flange, w/o cardan joint, w/o foot pad.

** Includes base carrier Tier IV, w/o counterweight, w/o kelly bar, w/o casing flange, w/o cardan joint, w/o foot pad, w/o rotary.*

Self mounting
counterweight
(optional package)



Technical data

Crowd system



CCS_Cylinder Crowd System		
- Stroke	6500 mm	256 in
- Crowd force pull (down/up)	140 / 280 kN	31473 / 62945 lbf
- Speed up	16,3 m/min	53 ft/min
- Speed down (slow/fast)	9,1 / 20,4 m/min	30 / 67 ft/min
WCS_Winch Crowd System		
- Stroke	16200 mm	740 in
- Crowd force pull (down/up)	330 / 330 kN	74186 / 74186 lbf
- Speed up (slow/fast)	15,5 / 34 m/min	51 / 112 ft/min
- Speed down (slow/fast)	15,5 / 34 m/min	51 / 112 ft/min

Engine



Engine		
- Model	Cummins L 9	Cummins L 9
- Power rating	272 kW @ 2100 rpm	365 HP @ 2100 rpm
- Engine conforms to Exhaust emission Standard	EU Stage V / US EPA Tier 4f	EU Stage V / US EPA Tier 4f
- AD Blue tank capacity	56,8 l	15 US gal
- Fuel tank capacity	500 l	132 US gal

Available:
 Engine Tier 3: Power rating 261 kW (350 HP) @ 2100 rpm and max power 276 kW (366 HP) @ 1900 rpm

Hydraulic system



The cleaning of hydraulic oils is electronically monitored and any clogging is show to operator on DMS control system in the cab.

Hydraulic system		
- Main pump flow	2 x 294 l/min	2x 77.6 gal/min
- Auxiliary pump flow	160 l/min	42.2 gal/min
- Hydraulic oil tank	600 lt	1582 min

Winches



Main winch		
- Type	control descent	control descent
- Line pull (1st layer)	220 kN	48510 lbf
- Rope diameter	26 mm	1.02 in
- Line speed (max.)	84 m/min	275 ft/min
Auxiliary winch		
- Type	control descent	control descent
- Line pull (1st layer)	83 kN	18301 lbf
- Rope diameter	19 mm	0.75 in
- Line speed (max.)	76 m/min	249 ft/min

Noise



Noise		
- Sound pressure level in cab c/w Tier 4f Engine	76 dB(A)	76 dB(A)
- Sound power level c/w Tier 4f Engine	105 dB(A)	105 dB(A)
- Vibration transmitted to the hand-arm system of the machine operator	< 2.5 m/s ²	< 2.5 m/s ²
- Vibration transmitted to the whole body of the machine operator	< 0.5 m/s ²	< 0.5 m/s ²

Undercarriage



Especially designed for heavy duty applications that require less penetration, better turning capability and less ground disturbance. Maintenance-free crawler track. Hydraulic chain tensioning device.

Undercarriage		
- Type	variable gauge, telescoping sides frames	variable gauge, telescoping sides frames
- Overall width retracted / extended crawlers	2980 / 4500 mm	117 / 177 in
- Width of triple grouser track shoes	700 mm	28 in
- Overall length of crawlers	5686 mm	224 in
- Traction force	395 kN	88798 lbf
- Travel speed	2,2 km/h	1.4 mph

H-cab



Soilmec H-cab. By assessing the specific application and listening properly to the wishes and requirements of the operators, Soilmec provides the optimal operator cabin for comfort. Ergonomic seat with air suspension, fully adjustable, lumbar support, air management, as well as lines of sight, quality and safety are standard aspects considered during the design of the right configuration for the cabin.

- Cabin width	1050 mm	3.4 ft
- Sliding door		
- Courtesy lights		
- Air conditioning system and climate control unit		
- Radio player with USB aux port		

Controls



DMS control system, developed and manufactured by Soilmec - is designed to give you a total control over performance, production and all your drilling rigs. In real time all the information relating to the operation work cycles and diagnostics of faults are shown on a multilanguage touch screen display installed in the cab.

All drilling operations are actuated by two innovative joysticks. Automatic controls of rotary head and drilling phases are available on request thanks to simple implementation of our DMS system.

Configurations

	LDP Large Diameter Pile with Kelly bar			CFA Continuous Flight Auger Piles		LDP Large Diameter Pile with Kelly bar			CFA Continuous Flight Auger Piles	
	(WCS)	(CCS)	(LHR)	(4-line pull)	(QC)	(WCS)	(CCS)	(LHR)	(4-line pull)	(QC)
UNDERCARRIAGE	●	●	●	●	●				●	●
Variable gauge, telescopic side frames	●	●	●	●	●				○	○
Machine anchor points for transport	●	●	●	●	●				●	●
Mechanical prearrangement for casing oscillator	●	●	●	●	●				○	○
Hydraulic prearrangement for casing oscillator	○	○	○	○	○				○	○
VRM120KL casing oscillator	○	○	○	○	○				○	○
VRM150KL casing oscillator	○	○	○	○	○				○	○
Radio remote control for trimming operation	○	○	○	○	○				○	○
UPPER STRUCTURE										
Diesel engine QSL 9 EU Stage IV – US EPA Tier 4F	●	●	●	●	●				●	●
Diesel engine QSL 9 EU Stage IIIA – US EPA Tier 3	○	○	○	○	○				○	○
Diesel engine QSL 9 EU Stage V – US EPA Tier 4F	○	○	○	○	○				○	○
Start and slow system	●	●	●	●	●				●	●
Harness technology for electrical system	●	●	●	●	●				○	○
Automatic Greasing package	○	○	○	○	○				○	○
PTO kit for washing lance	○	○	○	○	○				○	○
Self-mounting counterweight	○	○	○	○	○				○	○
Catwalks for centre of turret	●	●	●	●	●				○	○
Rear ladder for turret access	●	●	●	●	●				○	○
Foldable side catwalks for cabin	○	○	○	○	○				○	○
Machine lifting kit (harbor use)	○	○	○	○	○				○	○
Foldable catwalk with handrails	○	○	○	○	○				○	○
Acoustic & light alarm for trimming	●	●	●	●	●				○	○
Lighting led system package	○	○	○	○	○				○	○
Sound proofed canopies	●	●	●	●	●				○	○
H-CAB										
Front protective grille	●	●	●	●	●				○	○
Falling object protective structure (FOPS)	●	●	●	●	●				○	○
Lower front protective grille	●	●	●	●	●				○	○
Rearview mirrors	●	●	●	●	●				○	○
Comfort package (cup holder, radio, A/C system, USB port and 12 V power socket, roll-up awning, courtesy lights)	●	●	●	●	●				○	○
Operator seat (air suspension, lumbar support, fully adjustable positioning, safety belt & operator presence micro-switch)	●	●	●	●	●				○	○
Front tools support	○	○	○	○	○				○	○
Service rope holder	○	○	○	○	○				○	○
Lighting system in front of the cab	●	●	●	●	●				○	○
CONTROL AND MONITORING SYSTEM										
DMS ON BOARD with technological package	●	●	●	●	●				●	●
DMS PC	○	○	○	○	○				○	○
DMS manager 4.0	○	○	○	○	○				○	○
GSM / GPRS / WIFI Modem	●	●	●	●	●				○	○
PLC processor for electrically actuated functions	●	●	●	●	●				○	○
DMS ON BOARD adjustable monitor 12" touch screen	●	●	●	●	●				○	○
Video control by 4 cameras with display in the cab	○	○	○	○	○				○	○
WINCHES										
Main winch SW220 model	●	●	●	●	●				○	○
Load cell for main winch	○	○	○	○	○				○	○
Main & service winch pull instant value displayed on DMS On Board	○	○	○	○	○				○	○
Limit switch for rope winding and winches	○	○	○	○	○				○	○
Depthmeter for main winch	○	○	○	○	○				○	○
Anti-slack system for main winch	○	○	○	○	○				○	○
Service winch SW100 model	●	●	●	●	●				○	○
Load cell for service winch	○	○	○	○	○				○	○
ROTARY UNIT										
RD240 model Max torque intermitted: 258.5 kNm (180659 lbs'ft)	●	●	●	●	●				○	○
RD240G with gear box model Max torque intermitted: 271 kNm (199879 lbs'ft)	○	○	○	○	○				○	○
Interchangeable rotary sleeve	●	●	●	●	●				○	○
Quick disassembling rotary kit	○	○	○	○	○				○	○
Automatic greasing kit for cradle	○	○	○	○	○				○	○
Automatic control of motor displacement	●	●	●	●	●				○	○
Oil discharge conveying system	○	○	○	○	○				○	○
MAST										
Modular main mast	○	○	○	○	○				○	○
Mast guide cleaner	○	○	○	○	○				○	○
Kit for assisted rasing mast	○	○	○	○	○				○	○
Lower foldable mast element	●	●	●	●	●				○	○
Hydraulic cathead folding kit	○	○	○	○	○				○	○
Cathead greasing kit	○	○	○	○	○				○	○
Double positioning of cylinder	n.a.	●	n.a.	○	○				n.a.	n.a.
Double positioning of sheaves	●	n.a.	n.a.	○	○				n.a.	n.a.
KELLY BAR TECHNOLOGY										
Rotary sleeve with 3 ribs	●	●	●	○	○				n.a.	n.a.
Rotary sleeve with 6 ribs	○	○	○	○	○				n.a.	n.a.
Spin off discharging system	●	●	●	○	○				n.a.	n.a.
"Click-click" discharging system	○	○	○	○	○				n.a.	n.a.
Cardan joint	●	●	●	○	○				n.a.	n.a.
Flange for casing driving d.1300 mm (51.1 in)	●	●	●	○	○				n.a.	n.a.
Flange for casing driving d.1500 mm (59 in)	○	○	○	○	○				n.a.	n.a.
Flange for casing driving d.1700 mm (66.9 in)	○	○	○	○	○				n.a.	n.a.
Variable drilling axle	●	●	●	○	○				n.a.	n.a.
Automatic return to the centre hole	○	○	○	○	○				○	○
Kelly bar guide	○	○	n.a.	○	○				○	○
CFA TECHNOLOGY										
Hydraulic prearrangement for CFA 4-line pull	n.a.	n.a.	n.a.	●	n.a.				○	○
Sleeve 3 m long	n.a.	n.a.	n.a.	○	○				○	○
Sleeve 6 m long	n.a.	n.a.	n.a.	○	○				○	○
Sleeve 7 m long	n.a.	n.a.	n.a.	○	○				○	○
DMS ON BOARD with automatic auger lifting	n.a.	n.a.	n.a.	●	●				○	○
Autodrilling package	n.a.	n.a.	n.a.	○	○				○	○
Autorotary package	n.a.	n.a.	n.a.	○	○				○	○
Additional pull-down winch 100 kN (22480 lb)	n.a.	n.a.	n.a.	○	n.a.				○	○
Openable lower guide d.1200 mm (47.2 in)	n.a.	n.a.	n.a.	●	●				○	○
Auger cleaner star type	n.a.	n.a.	n.a.	○	○				○	○
Double roller auger cleaner d.1200 mm (47.2 in)	n.a.	n.a.	n.a.	○	○				○	○
Two pressure transducers kit	n.a.	n.a.	n.a.	●	●				○	○
Hydraulic prearrangement for VTH-1 vibrator	n.a.	n.a.	n.a.	○	○				○	○
Automatic greasing package for CFA cathead	n.a.	n.a.	n.a.	○	○				○	○
DISPLACEMENT_ Lattice mast extension 12,3 m (40.4 ft)	n.a.	n.a.	n.a.	○	○				n.a.	●

● standard ○ optional n.a. not available

CE standard equipment for CE certification

A close-up photograph of a muddy tire tread on a dirt surface. The tire is dark brown and heavily coated in mud, with the tread pattern clearly visible. The background is a blurred dirt surface, suggesting a construction or agricultural setting.

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#muddyboots