SR-75

BLUE TECH

soilmec
Drilling and Foundation Equipment

Blue Tech Line ...
... dressed to impress.

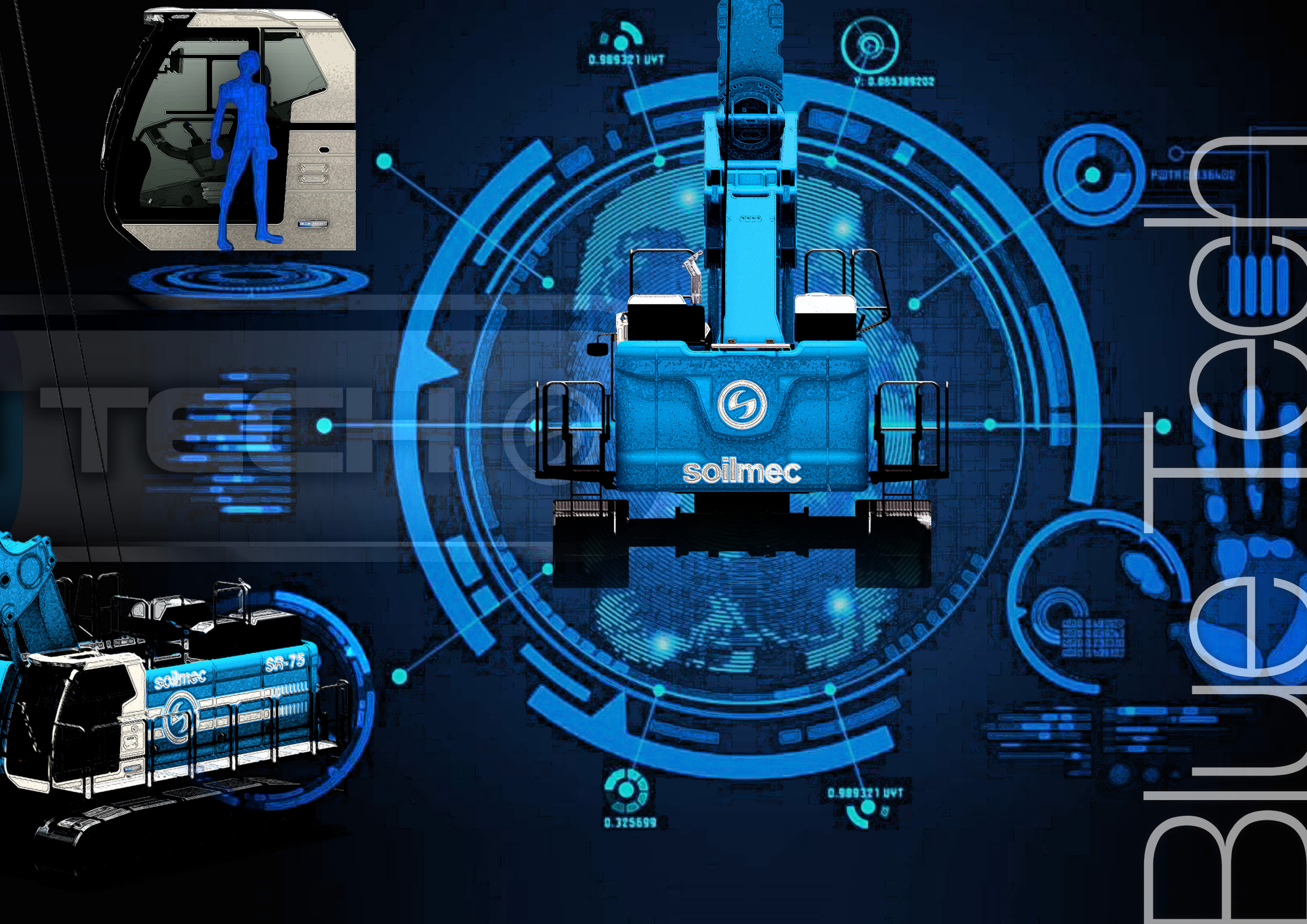
Multifunctionality & Efficiency

Easy to be converted in different technologies,
highest efficiencies and environmental friendly,
simplified circuits & controls for an improved reliability.

Designed for all foundation techniques

- easier to use through “plug & play” connections,
- increased efficiency,
- more power direct on the tool.

We have done it, tested and made it unique.


soilmec
SR-75
BlueTech

SR-75 Blue Tech.
A new step into the Future.

SR-75 blending together cutting edge technology, design and comfort to ensure top performance.
Improved response and better calibrated control of hydraulics for smoother and increased operations performance.

SR-75 does more than set a standard.
Once again, it sets a future trend.


R-75

As usual we combine performance with comfort and design.

PERFORMANCE

Engine. Cummins X12 with 336 kW (450 hp), turbocharged and air cooled

Extreme efficiency for a more real power at each function

Torque. Increased by 13%. Innovative design to reach 281 kNm (207255 lb*ft) of rated value. Unique in its class.

Saving. The new set-up saves fuel and time during the work cycle - up to 50% on the winch cycle and approx. 10,4 litres (2.75 gal) of fuel saved per hour.

Main winch. 270 kN line pull for an improved production.

DESIGN

Operator cabin. Conceptually designed and developed to provide maximum comfort, visibility and accessibility.

Maintenance. A new hydraulic skid for an easy and safe access to servicing.

Self-mounting counterweight.

3m mast extension adapted for any drilling condition, from kelly to CFA / DP / TJ.

Variable drilling axis for increased pile diameter in front of the mast

SAFETY

Increased visibility. Improved direct visibility on right-side through new compact hydraulic compartment, full view on the top roof without the protection grid thanks to a resistant special polycarbonate material used.

Camera systems for a greater visibility, giving a clear surround view of the rig.

Powerful led lights with antiglare technology.

Integrated led ambient lights to give best visibility inside the cabin.

CONNECTIVITY

DMS ON BOARD, a high-tech instrumentation to increase piling efficiency through improved operations control and automated drilling functions.

Remote service assistance. USB port and phone wireless charger support.

Radio player.

DMS MANAGER cloud-running application.

DMS PC. Licensed software to show, analyse and elaborate production data.

TECHNOLOGY

Plug and play design approach gives you the versatility to use a wide range of Soilmec attachments.

Two types of crowd system.

Six different packages for CFA technology.

Two VDW kit for cased secant piles.

Displacement Piles set-up with TCT and TurboJet® technology.

Several optional to increase the performance and productivity.

New direct pull system for a faster conversion from kelly to CFA / DP / TJ.

Key features

SR-75, A NEW BENCHMARK

Like never before, all over again.

A high power VOLVO Diesel engine, with low consumption and noise.

Electrical system with technology 2.0 and proportional controls.

Downtime reduction thanks to real-time rig monitoring.

SR-75 HIGHLIGHTS

Variable drilling axis.

A pressurized tank to save oil.

Faster refuelling.

Quick and accurate device to returning to centre hole useful in segmental casing technology.

Soilmec DMS
Drilling Mate System

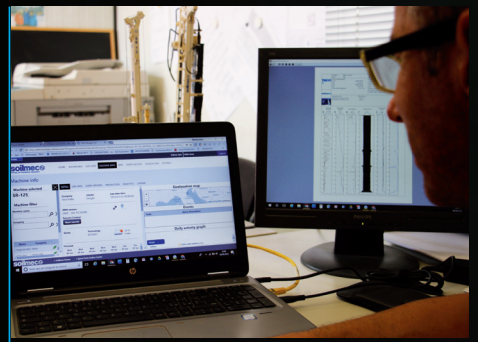
Electronic system for drilling equipment control, production supervision and fleet management developed and owned by Soilmec since the late ‘90s.

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.


DMS

ERGONOMICS & FUNCTIONALITY

The cabin conceptual design and development have been made in accordance to the latest ergonomics criteria, in compliance with international standards, to provide the operator with maximum comfort, visibility and accessibility.

Internal and external is finished to the highest quality.

Logical layout of rig controls to ensure peak performance in total safety.

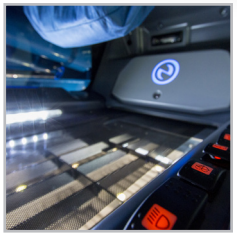
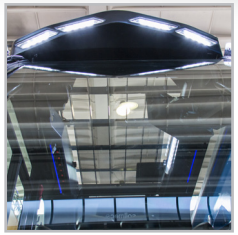
CONNECTIVITY

DMS ON BOARD with a multi-language 12” touchscreen display on top of the cabin to ensure max visibility at drilling area.

Horizontal sliding and tilt-adjustment mechanism (optional).

A simple navigation menu and intuitive interactive graphics to help the operator in the day-by-day drilling planning and execution.

Buttons and switches light up when operated.




COMFORT

Intelligent climate control for a pleasant indoor temperature at all times and under the most severe weather conditions by means of a powerful HVAC system. Convenient location of air conditioning filter to the left side of the cabin for an easy and quick maintenance.

Extra storage space including

- Compartments behind the seat and on armrests
- 3 locked glove boxes (one is air conditioned)
- Helmet and jacket compartment
- 2 dual cupholders
- File cabinet

USB port, phone charger (USB or wireless), radio player, ambient lights with LED ceiling lamps

A sliding glass door with an integrated easy-slide window to facilitate communication with drilling crew outside.

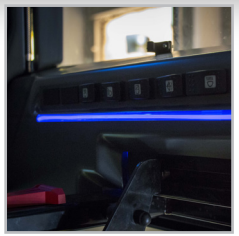
VISIBILITY

Front windshield in stratified glass possible use without protection grid for a wider uncluttered view.

Solar control glass, right-side, to increase the monitor brightness inside the cab.

Four powerful led lights, anti-glare, for an incomparable illumination of the frontal working area.

A CCTV camera set with a dedicated 7” display and adjustable mirrors for a total control on the job site area surrounding the machine.



comfort

SAVING

Site tests effectively confirm up to 23% reduction in pressure losses corresponding to approximately 10.4 l/h of fuel saved, based on a standardized drilling cycle.

PERFORMANCE

Higher force and speed for cylinder crowd system.

Newly designed winch crowd: longer stroke, increased depth in the quick change version, longer casing elements available in LDP configuration.

Max torque (intermitted): 293 kNm (216106 lb*ft).

Rated torque: 281 kNm (207255 lb*ft). 13% more than previous SR-75 ADV

Pile diameter: up to 2300 mm (91 in) in front of the mast with special set-up in CCS version.

We cater for your jobsite needs.

Even with an abundance of standard features, a menu of options and packages lets you create a SR-75 that's a perfect fit for your needs. Thoughtfully curated option packages - like the selection shown here - make it easy to add the most popular features and technologies.

Main winch rope anti-slack.

Managed by DMS, the system indicates when to slow down the kelly bar descent in order to avoid collision with the hole bottom and excessive rope unwinding.

Automated greasing.

Service rope retaining system.

Quick and easy conversion from LDP into CFA/DP/TCT.

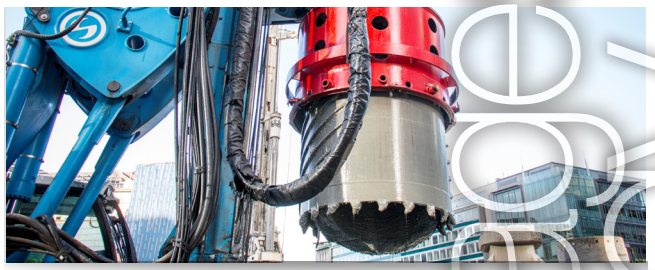
CFA Autodrilling: An automatic device for CFA mode to control and optimize the drilling parameters.

CFA Autorotary: The operator can activate this function by a dedicated pedal or through joystick.

Potentiometers main functions in order to manually set up of the drilling parameters.

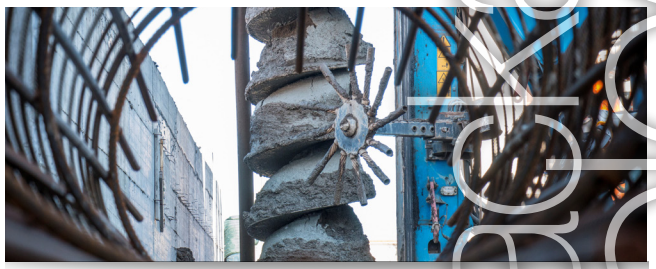
LARGE DIAMETER PILE

Cylinder or winch crowd system.
Same cathead.
Same versatility.
Same drilling depth up to 93 m (305 ft).



CONTINUOUS FLIGHT AUGER

Quick conversion.
High production.
6 different packages to drill up to 29 m (95 ft)
Pull-up capacity increased in 4-line pull
Direct pull system



CASED SECANT PILE

Two configurations: VDW 1407 and VDW 2010.
Casing length: up to 19.5m (64 ft).
Casing max torque: 190 kNm (140137 lb*ft)
Max diameter: 710 (28 in)

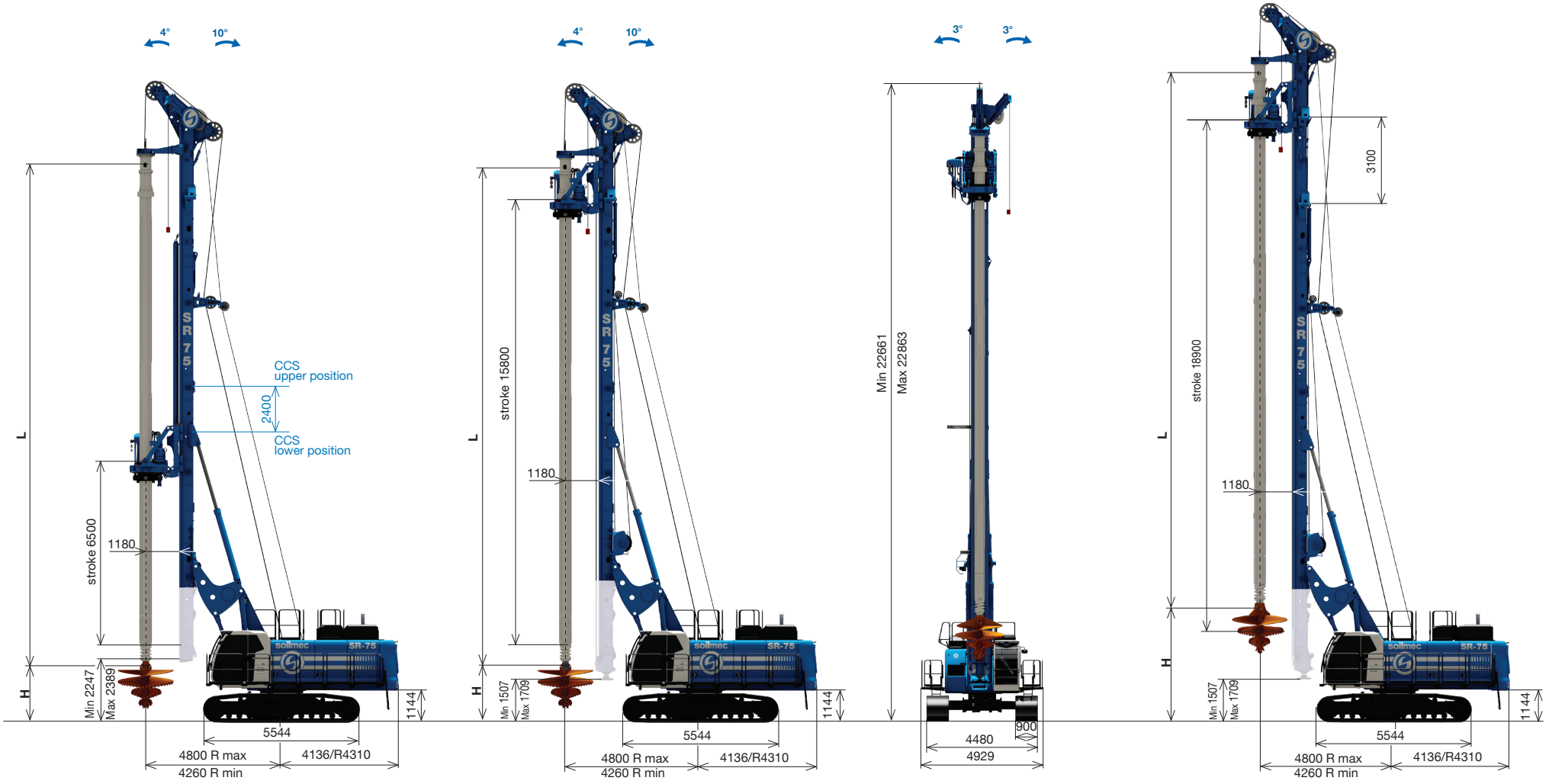
Technology Packages

Large Diameter Piles

Cylinder Crowd System

Winch Crowd System

Extended version



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LDP - Large Diameter Piles - CCS version		
Operating weight w/o kelly bar	**70400 kg**	*155204 lb*
Max pile diameter (tool in front of the mast)	**2000 mm**	*78.74 in*
Max pile diameter c/w increased drilling axis [1] (tool in front of the mast)	**2300 mm**	*90.55 in*
Max pile diameter w/o lower mast section [1-2] (tool below the mast)	**2500 mm**	*98.43 in*
Max pile diameter c/w increased drilling axis [1] & w/o lower mast section [1-2] (tool below the mast) [5]	**2800 mm**	*110.24 in*
Working radius [4]	**4110 - 4800 mm**	*161.81 - 188.98 in*
Tail swing radius	**4150 mm**	*163.39 in*
Max pile depth-friction kelly	**78 m**	*255.91 ft*
Max pile depth-locking kelly	**62 m**	*203.41 ft*

LDP - Large Diameter Piles - WCS version		
Operating weight w/o kelly bar	**72000 kg**	*158733 lb*
Max pile diameter (tool in front of the mast)	**1750 mm**	*68.90 in*
Max pile diameter c/w increased drilling axis [1] (tool in front of the mast)	**2000 mm**	*78.74 in*
Max pile diameter w/o lower mast section [1-3] (tool below the mast)	**2500 mm**	*98.43 in*
Max pile diameter c/w increased drilling axis [1] & w/o lower mast section [1-3] (tool below the mast)	**2800 mm**	*110.24 in*
Working radius [4]	**4110 - 4800 mm**	*161.81 - 188.98 in*
Tail swing radius	**4150 mm**	*163.39 in*
Max pile depth-friction kelly	**77,8 m**	*255.24 ft*
Max pile depth-locking kelly	**62 m**	*203.41 ft*

LDP - Large Diameter Piles - Extended version		
Operating weight - w/o kelly bar - CCS version	**73000 kg**	*160936 lb*
Operating weight - w/o kelly bar - WCS version	**74600 kg**	*164463 lb*
Working radius [4]	**4110 - 4800 mm**	*161.81 - 188.98 in*
Max pile depth	**93 m**	*305.12 ft*

[1] package on request
[2] cylinder crowd in upper position - depth reduced by 2,4 m (7.9 ft)
[3] rotary stroke reduced - depth reduced by 2,4 m (7.9 ft)
[4] working radius with increased drilling axis: 4260 - 4800 mm (168 - 189 in)

Kelly bars for LDP

	Kelly type	Kelly dimens.	Drilling Deph [1] m	ft	Weight t	t(US)	L Length m	ft	H CCS_low m	ft	CCS_high m	ft	WCS m	ft
3 pars [2]	BL HD	3 x 9	24,4	80.1	4,4	4.8	10,4	34,1	8,4	27.6	9,2	30.2	9,2	30.2
	BL HD	3 x 10,5	28,2	92.5	5,0	5.5	11,7	38,3	8,0	26.2	8,0	26.2	8,0	26.2
	BL HD	3 x 11,5	31,6	103.7	5,3	5.9	12,8	41,9	6,8	22.3	6,8	22.3	6,8	22.3
	BL HD	3 x 13,5	37,6	123.4	6,1	6.7	14,8	48,5	4,8	15.7	4,8	15.7	4,8	15.7
	BL HD	3 x 15,5	43,7	143.4	6,9	7.6	16,8	55,2	2,8	9.2	5,9 [3]	19.4	2,8	9.2
	BL HD	3 x 16,5	46,9	153.9	7,2	8.0	17,9	58,8	1,7	5.6	4,8 [3]	15.7	1,7	5.6
	BL HD [3]	3 x 17,5	49,5	162.4	7,6	8.4	18,8	61,6	3,9	12.8	3,9	12.8	3,9	12.8
	BL HD [3]	3 x 18,5	51,9	170.3	8,0	8.8	19,6	64,1	3,2	10.5	3,2	10.5	3,2	10.5
	BL HD [3]	3 x 19,5	55,7	182.7	8,4	9.2	20,8	68,3	1,9	6.2	1,9	6.2	1,9	6.2
4 pars [2]	BL HD	4 x 9	32,4	106.3	5,9	6.5	10,4	34,1	8,4	27.6	9,2	30.2	9,2	30.2
	BL HD	4 x 10,5	37,4	122.7	6,7	7.4	11,7	38,3	8,0	26.2	8,0	26.2	8,0	26.2
	BL HD	4 x 11,5	41,6	136.5	7,2	8.0	12,8	41,9	6,8	22.3	6,8	22.3	6,8	22.3
	BL HD	4 x 13,5	49,9	163.7	8,3	9.2	14,8	48,5	4,8	15.7	4,8	15.7	4,8	15.7
	BL HD	4 x 15,5	58,2	190.9	9,4	10.4	16,8	55,2	2,8	9.2	5,9 [3]	19.4	2,8	9.2
	BL HD	4 x 16,5	62,4	204.7	10,0	11.0	17,9	58,8	1,7	5.6	4,8 [3]	15.7	1,7	5.6
	BL HD [3]	4 x 17,5	65,9	216.2	10,5	11.6	18,8	61,6	3,9	12.8	3,9	12.8	3,9	12.8
	BL HD [3]	4 x 18,5	69,1	226.7	11,0	12.2	19,6	64,1	3,2	10.5	3,2	10.5	3,2	10.5
	BL HD [3]	4 x 19,5	74,1	243.1	11,6	12.8	20,8	68,3	1,9	6.2	1,9	6.2	1,9	6.2
5 pars	FR HD	5 x 10,5	46,8	153.5	6,3	7.0	11,5	37,9	8,1	26.6	8,1	26.6	8,1	26.6
	FR HD	5 x 11,5	52,4	171.9	6,8	7.5	12,7	41,6	7,0	23.0	7,0	23.0	7,0	23.0
	FR HD	5 x 13,5	62,5	205.1	7,8	8.6	14,7	48,1	4,9	16.1	4,9	16.1	4,9	16.1
	FR HD	5 x 15,5	73,4	240.8	8,8	9.7	16,9	55,4	2,7	8.9	5,8 [3]	19.0	2,7	8.9
	FR HD	5 x 16,5	78,1	256.2	9,3	10.3	17,8	58,4	1,8	5.9	4,9 [3]	16.1	1,8	5.9
	FR HD [3]	5 x 17,5	82,9	272.0	9,8	10.8	18,8	61,6	3,9	12.8	3,9	12.8	3,9	12.8
	FR HD [3]	5 x 18,5	86,8	284.8	10,3	11.4	19,6	64,1	3,2	10.5	3,2	10.5	3,2	10.5
	FR HD [3]	5 x 19,5	93,2	305.8	10,8	12.0	20,9	68,5	1,8	5.9	1,8	5.9	1,8	5.9

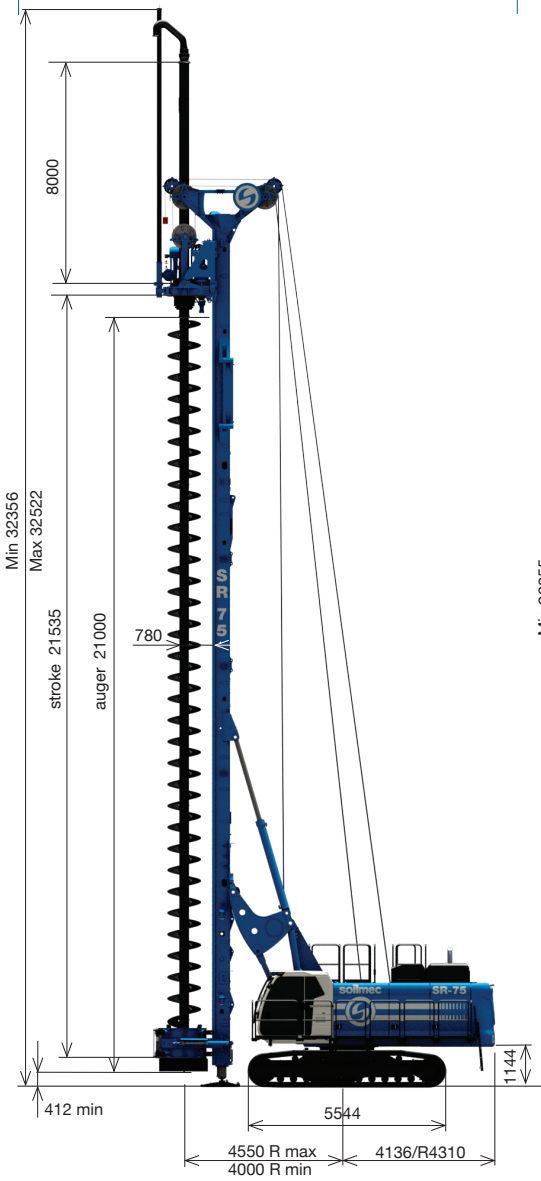
[1] *drilling depth is reduced by 2,4 m (7.9 ft) without lower mast section or cylinder crowd in high position; drilling depth is calculated with kelly bar c/w stub 200x200 and drilling tool 1500 mm (4.9 ft) long*

[2] *friction type is also available with the same dimension*

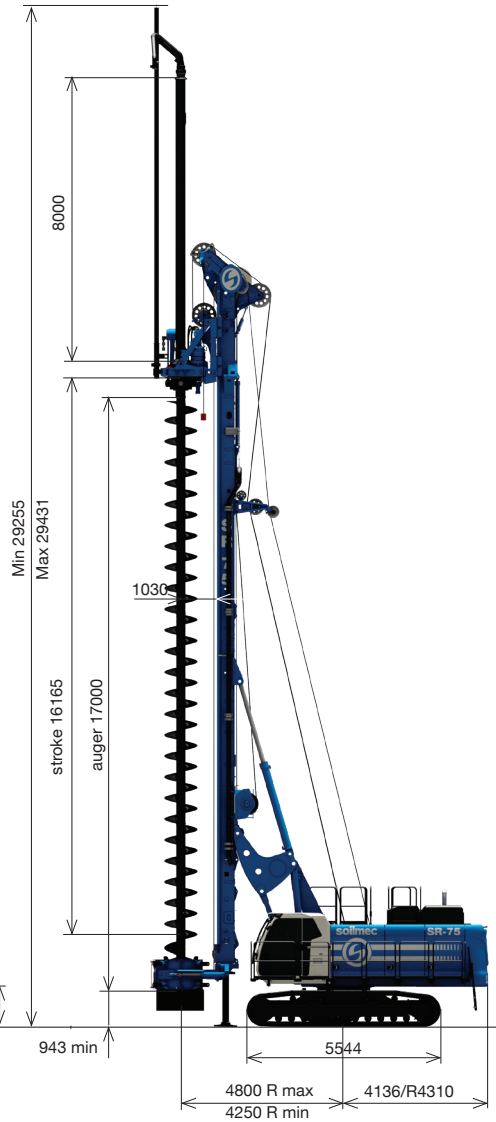
[3] *special kit (with mast extension 3,1m) is requested*

CFA / DP / TJ / DTH applications

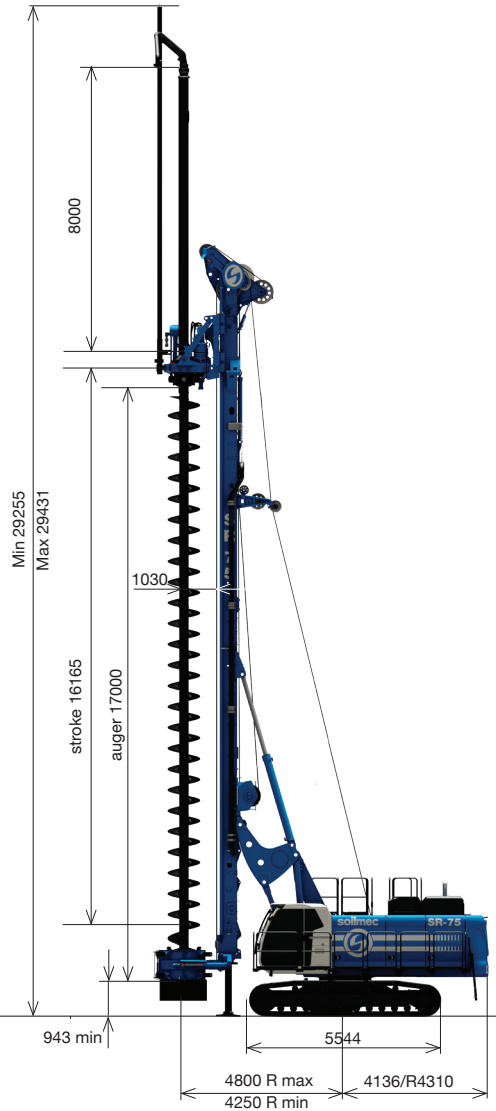
CFA/DTH
4-lines pull_extended version



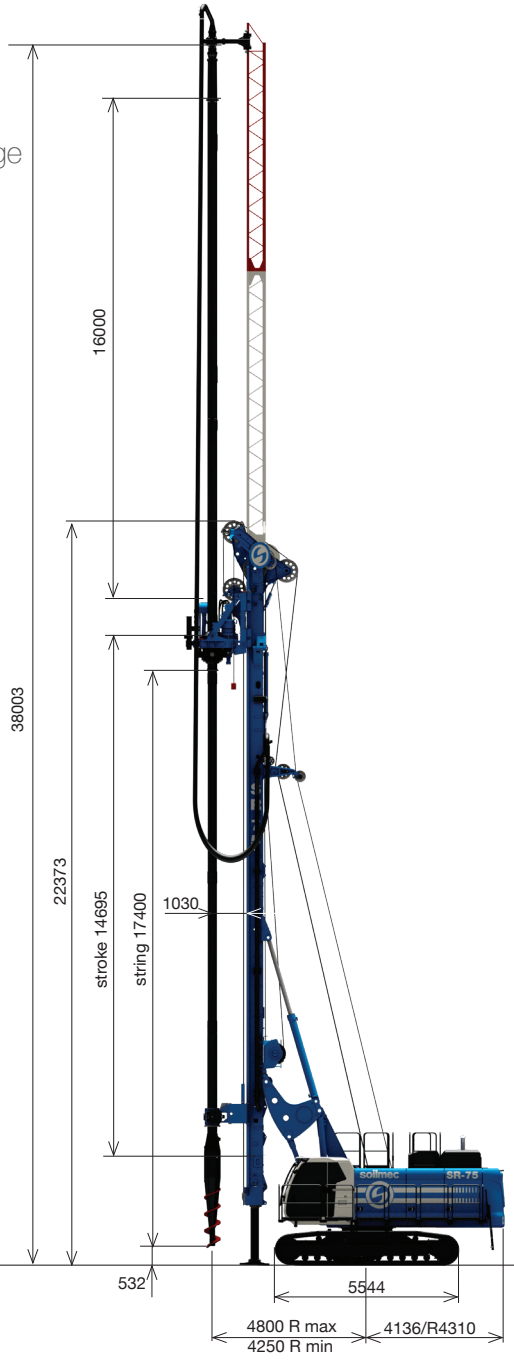
CFA
Quick Change



CFA
Direct Pull



DP / TCT
Quick Change



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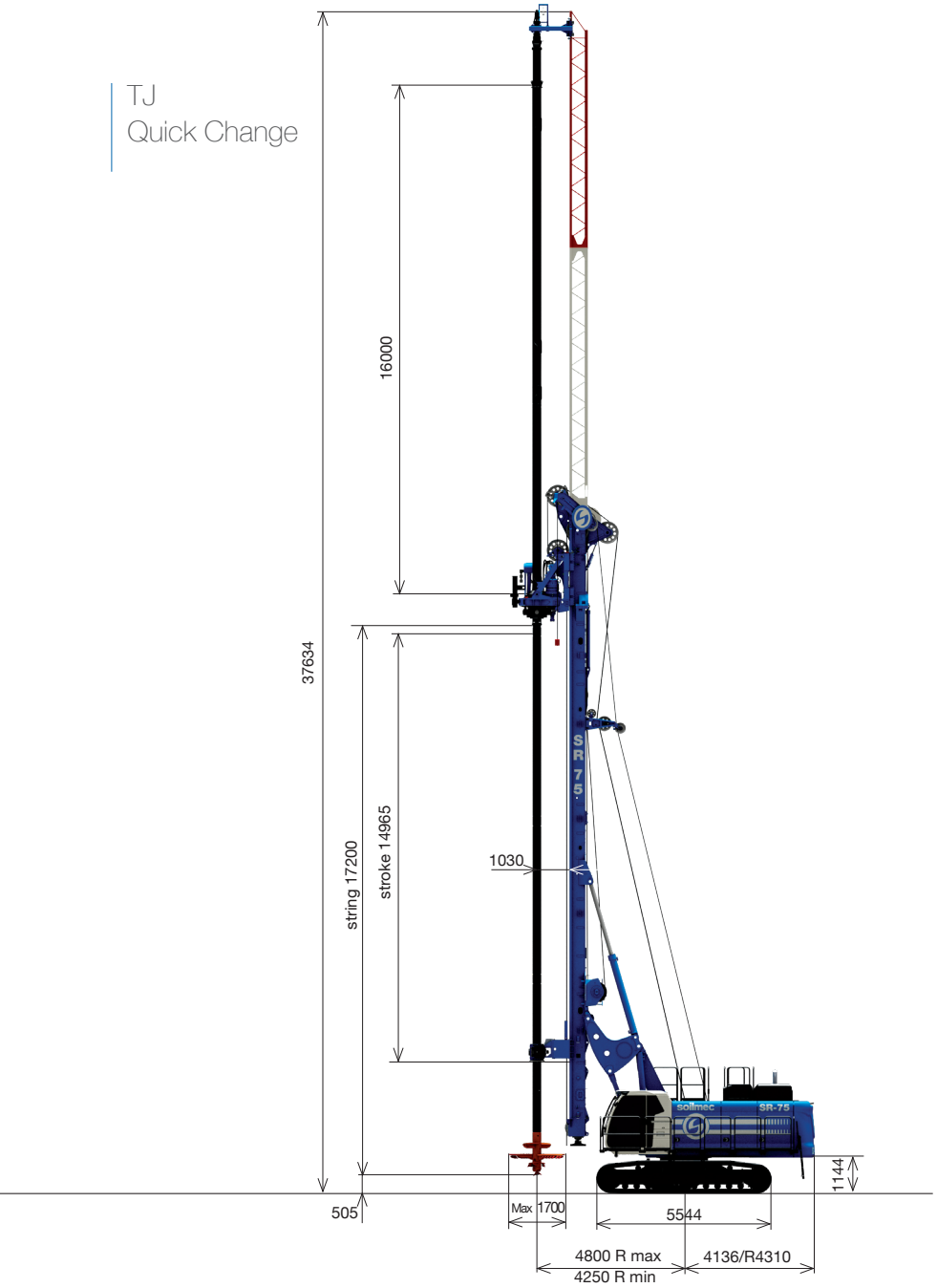
TJ
Quick Change

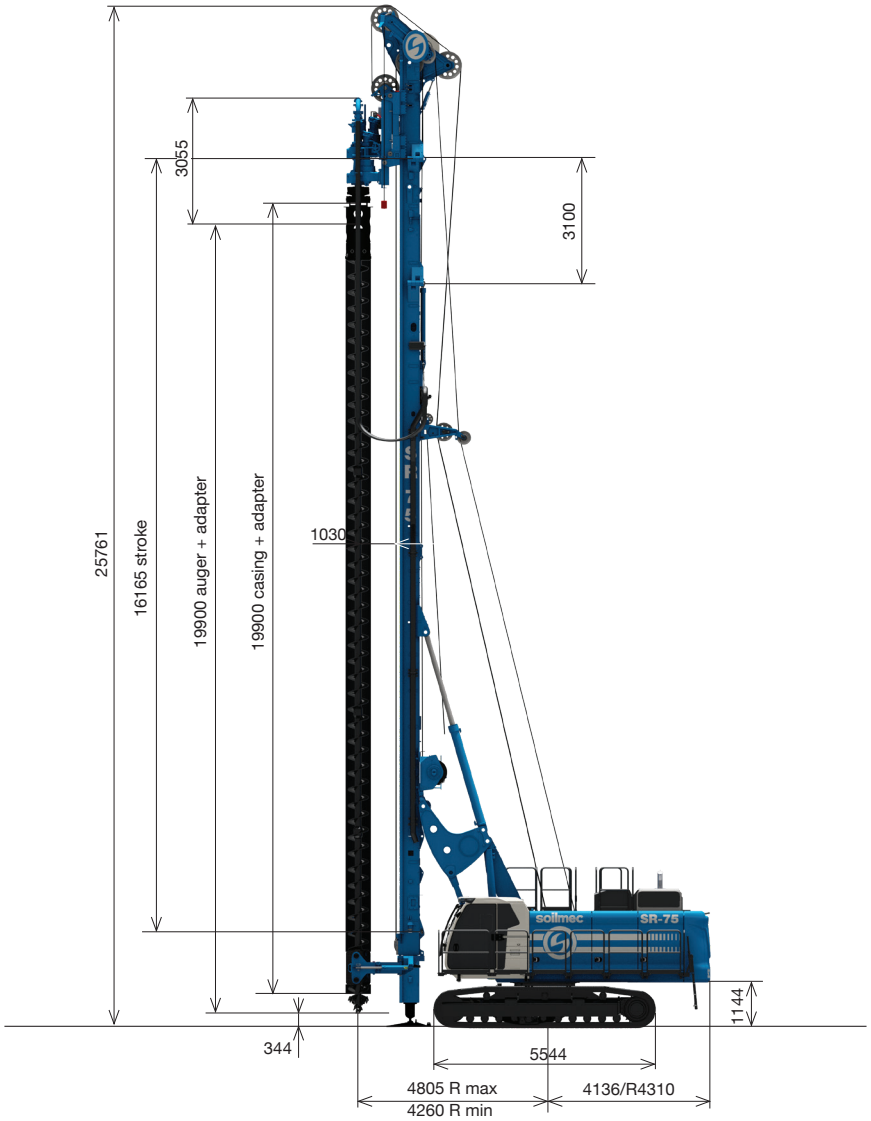


CFA /DTH - Continuous Flight Auger / Down The Hole - ***4 lines pull***	***standard version***		***extended version*** [5]	
Operating weight (c/w 6 m - 19.6 ft sleeve extension, w/o auger)	**73100 kg**	*161156 lb*	**73500 kg**	*162038 lb*
Max pile diameter	**105/1200 mm**	*4/47 in*	**105/1200 mm**	*4/47 in*
Max length of auger	**19,5 m**	*63.98 ft*	**21 m**	*68.90 ft*
Max length of sleeve extension	**8 m**	*26.25 ft*	**8 m**	*26.25 ft*
Max pile depth (c/w 8 m - 26.25 ft sleeve extension) [1]	**27,5 m**	*90.22 ft*	**29 m**	*95.14 ft*
Nominal extraction force	**984 kN**	*221208 lbf*	**984 kN**	*221208 lbf*
Additional crowd force on auger [2-3]	**408 kN**	*91720 lbf*	**408 kN**	*91720 lbf*
CFA - Continuous Flight Auger - Quick change	***standard version***		***extended version*** [5]	
Operating weight (c/w 8 m - 26.25 ft sleeve extension, w/o auger)	**74400 kg**	*164024 lb*	**77050 kg**	*169866 lb*
Max pile diameter	**1200 mm**	*47.24 in*	**1200 mm**	*47.24 in*
Max length of auger	**17 m**	*55.77 ft*	**20 m**	*65.62 ft*
Max length of sleeve extension	**8 m**	*26.25 ft*	**8 m**	*26.25 ft*
Max pile depth (c/w 8 m - 26.25 ft sleeve extension) [1]	**23,2 m**	*76.12 ft*	**26,2 m**	*85.96 ft*
Nominal extraction force	**800 kN**	*179844 lbf*	**630 kN**	*141627 lbf*
Nominal crowd force on auger	**408 kN**	*91720 lbf*	**408 kN**	*91720 lbf*
CFA - Continuous Flight Auger - Direct Quick change	***standard version***		***extended version*** [5]	
Operating weight (c/w 8 m - 26.25 ft sleeve extension, w/o auger)	**74450 kg**	*164134 lb*	**77100 kg**	*169976 lb*
Max pile diameter	**1200 mm**	*47.24 in*	**1200 mm**	*47.24 in*
Max length of auger	**17 m**	*55.77 ft*	**20 m**	*65.62 ft*
Max length of sleeve extension	**8 m**	*26.25 ft*	**8 m**	*26.25 ft*
Max pile depth (c/w 8 m - 26.25 ft sleeve extension) [1]	**23,2 m**	*76.12 ft*	**26,2 m**	*85.96 ft*
Nominal extraction force	**408 kN**	*91720 lbf*	**408 kN**	*91720 lbf*
Nominal crowd force on auger	**408 kN**	*91720 lbf*	**408 kN**	*91720 lbf*
DP/TCT - Displacement pile - Quick change [4]	***standard version***		***extended version*** [5]	
Operating weight (w/o string and tool)	**75700 kg**	*166892 lb*	**78350 kg**	*172732 lb*
Operating weight c/w lattice boom ext (w/o string and tool)	**79450 kg**	*175157 lb*	**n.a**	*n.a*
Max recommended DP pile diameter	**600 mm**	*23.62 in*	**600 mm**	*23.62 in*
Max recommended TCT pile diameter	**800 mm**	*31.50 in*	**800 mm**	*31.50 in*
Max length of string	**17,4 m**	*57.09 ft*	**20,4 m**	*66.93 ft*
Max pile depth w/o lattice boom extension c/w 8,5 m (27.9 ft) string extension	**23,0 m**	*75.46 ft*	**26 m**	*85.30 ft*
Lattice boom extension length	**16 m**	*52.49 ft*	**n.a**	*n.a*
Max pile depth c/w lattice boom extension	**30,4 m**	*99.74 ft*	**n.a**	*n.a*
TJ - Turbojet® - Quick change [4]	***standard version***		***extended version*** [5]	
Operating weight (w/o string and tool)	**75700 kg**	*166890 lb*	**78350 kg**	*172732 lb*
Operating weight c/w lattice boom ext (w/o string and tool)	**78250 kg**	*172512 lb*	**n.a**	*n.a*
Max recommended TJ pile diameter	**1500 mm**	*59.06 in*	**1500 mm**	*59.06 in*
Max length of string	**17,4 m**	*57.09 ft*	**20,4 m**	*66.93 ft*
Max pile depth w/o lattice boom extension c/w 6 m (19.6 ft) string extension	**20,5 m**	*67.26 ft*	**23,5 m**	*77.10 ft*
Lattice boom extension length	**16 m**	*52.49 ft*	**n.a**	*n.a*
Max pile depth c/w lattice boom extension	**30,4 m**	*99.74 ft*	**n.a**	*n.a*
Max pile depth c/w lattice boom extension	**30,4 m**	*99.74 ft*	**n.a**	*n.a*

[1] *depth reduced of 1,7 m (5.58 ft) with roller auger cleaner* [2] *package on request - depth reduced by 1 m (3.28 ft)*
[3] *100 kN (22480 lbf) also available on request - depth reduced by 250 mm (0.82 ft)*
[4] *DP/TCT and TJ are also available with 4-line pull version or Direct Quick Change* [5] *by a Special Kit on request*

CSP/ VDW applications

Extended version

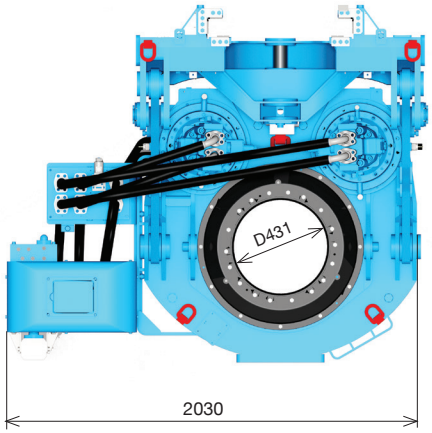


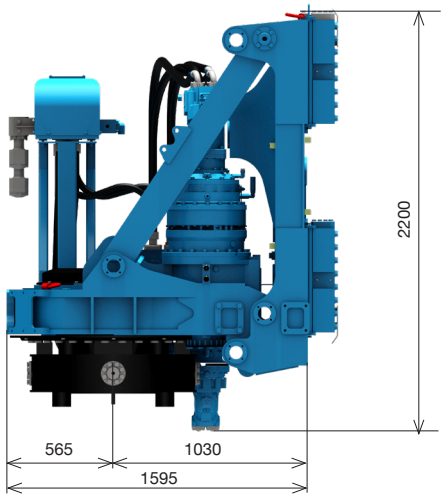
VDW 1407 - Cased Secant Piles Quick change	Standard version	*Standard version*	Extended version	*Extended version*
Operating weight (w/o auger and casing)	**72750 kg**	*160386 lb*	**75400 kg**	*166229 lb*
Max pile diameter	**620 mm** [1]	*24.41 in* [1]	**620 mm**	*24.4 in*
Max augered depth	**15,4 m**	*50 ft*	**18,3 m**	*60 ft*
Max cased depth	**15,1 m**	*49 ft*	**18 m**	*59 ft*
Casing max torque	**140 kNm**	*103257 lb*ft*	**140 kNm**	*103257 lb*ft*
Max casing speed rotation	**27,6 rpm**	*27.6 rpm*	**27,6 rpm**	*27.6 rpm*
Auger max torque	**70 kNm**	*51629 lb*ft*	**70 kNm**	*51629 lb*ft*
Max auger speed rotation	**36,9 rpm**	*36.9 rpm*	**36,9 rpm**	*36.9 rpm*
Nominal auger pull up/down	**630 / 408 kN**	*141627 / 91720 lbf*	**630 / 408 kN**	*141627 / 91720 lbf*
Nominal casing pull up/down	**630 / 408 kN**	*141627 / 91720 lbf*	**630 / 408 kN**	*141627 / 91720 lbf*

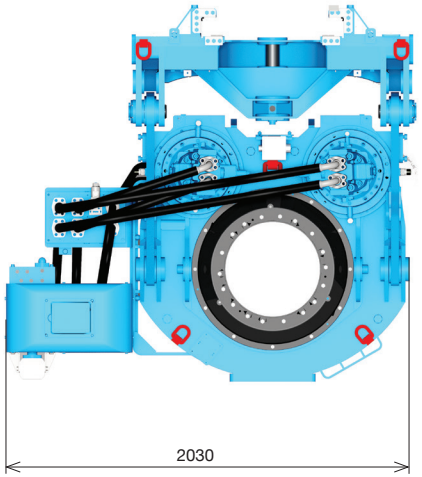
[1] *admissible up to diameter 711 mm / 28 in*

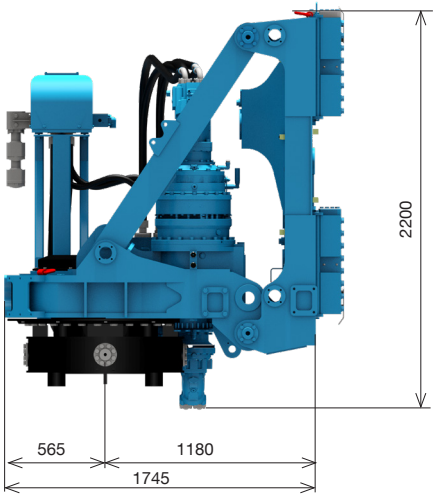
VDW 2010 - Cased Secant Piles Quick change	Standard version	*Standard version*
Operating weight (w/o auger and casing)	**76000 kg**	*167551 lb*
Max pile diameter	**620 mm**	*24.4 in*
Max augered depth	**15,4 m**	*50 ft*
Max cased depth	**15,1 m**	*49 ft*
Casing max torque	**202,7 kNm**	*149504 lb*ft*
Max casing speed rotation	**15,3 rpm**	*15.3 rpm*
Auger max torque	**101,4 kNm**	*74789 lb*ft*
Max auger speed rotation	**32,2 rpm**	*32.2 rpm*
Nominal auger pull up/down	**630 / 408 kN**	*141627 / 91720 lbf*
Nominal casing pull up/down	**630 / 408 kN**	*141627 / 91720 lbf*
Auxiliary counterweight	**1500 kg**	*3307 lb*

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



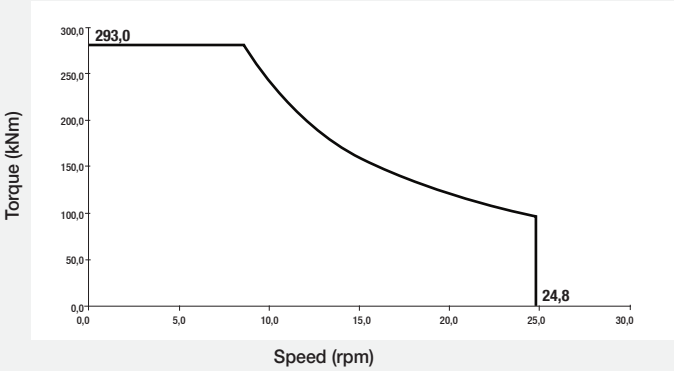






Rotary RD280 model	Displacement automatic control	*Displacement automatic control*
Max torque	**293 kNm**	*216102 lb*ft*
Rated torque	**280,7 kNm**	*207034 lb*ft*
Max drilling speed	**24,8 rpm**	*24,8 rpm*
Spin off speed	**130 rpm**	*130 rpm*
Weight (w/o cradle and casing flange)	**4300 kg**	*9480 lb*

Rotary torque diagram



Kelly bars for rotary OD 406 mm/15.6 in or 431 mm/17 in.

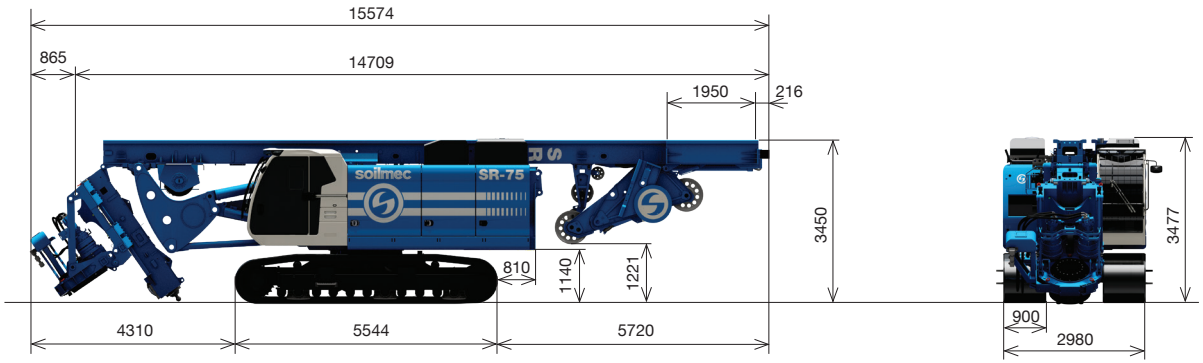
Rotary motors displacement automatic controlled by DMS.

Engine power savings in a resulting lower fuel consumption, estimated at 10,4 l/h (2.79 gal/h) thanks the contributory of the main valve fitted on rotary.

The variable drilling axis device (from 1030 mm to 1180 mm / 40.5 in to 46.5 in) ensures the maximum geometric clearance in front of the mast (up to diameter 2300 mm /90.6 in).

Transport, dimensions & weights

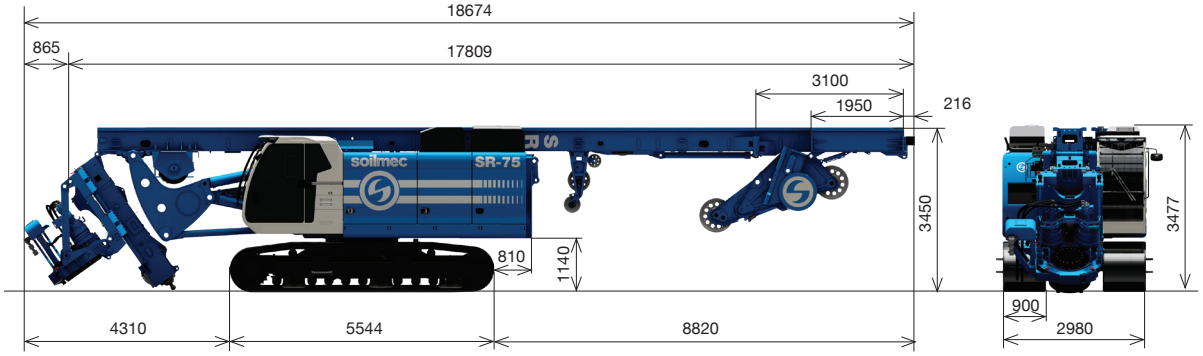
Winch Crowd System - Standard



Transport in LDP configuration	CCS	*CCS*	WCS	*WCS*
Transport weight	**60300 kg***	*132937 lb**	**61800 kg****	*136244 lb***
Transport length	**15574 mm**	*51.08 ft*	**15574 mm**	*51.08 ft*
Transport width	**3000 mm**	*9.84 ft*	**3000 mm**	*9.84 ft*

** includes the base carrier c/w undercarriage, mast, rotary, rotary cradle; w/o counterweight, and cylinder crowd*
*** includes the base carrier c/w undercarriage, mast, rotary, rotary cradle and must foot cylinder; w/o counterweight.*

Winch Crowd System - Extended



Transport in LDP configuration - Extended version	CCS	*CCS*	WCS	*WCS*
Transport weight	**61400 kg***	*135362 lb**	**62900 kg****	*138669 lb***
Transport length	**18674 mm**	*61.25 ft*	**18674 mm**	*61.25 ft*
Transport width	**3000 mm**	*9.84 ft*	**3000 mm**	*9.84 ft*

** includes the base carrier c/w undercarriage, mast, rotary, rotary cradle; w/o counterweight, and cylinder crowd*
*** includes the base carrier c/w undercarriage, mast, rotary, rotary cradle and cylinder crowd; w/o counterweight*

Easily disassembled and reassembled

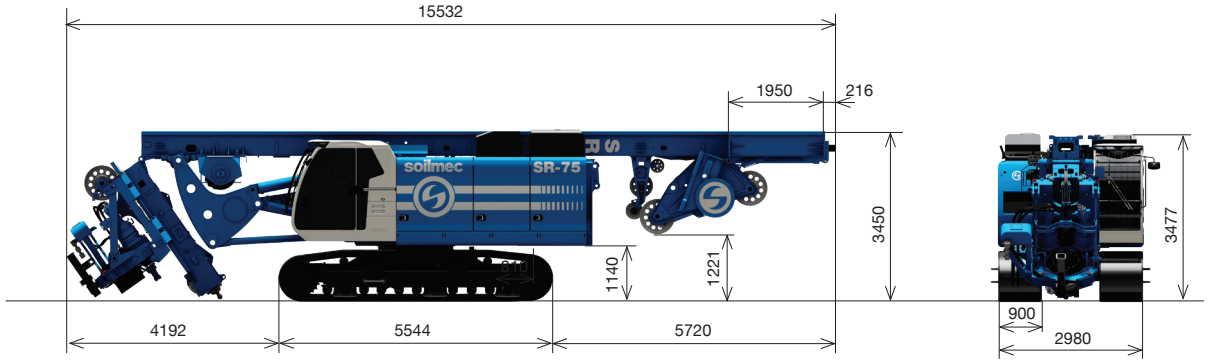
The constructive design of the machine allows for even lighter transport configurations. Some components can be easily disassembled and reassembled if necessary.

CCS Version: It is possible to remove, in addition to the counterweight, the cathead & the upper mast section, the lower mast section, the pull down cylinder and the rotary with its cradle to get a minimum transport weight of 50450 kg (111223 lb).

WCS Version: It is possible to remove the counterweight, the rotary with its cradle and, if any, the mast foot cylinder to get a minimum transport weight of 56800 kg (125223 lb).

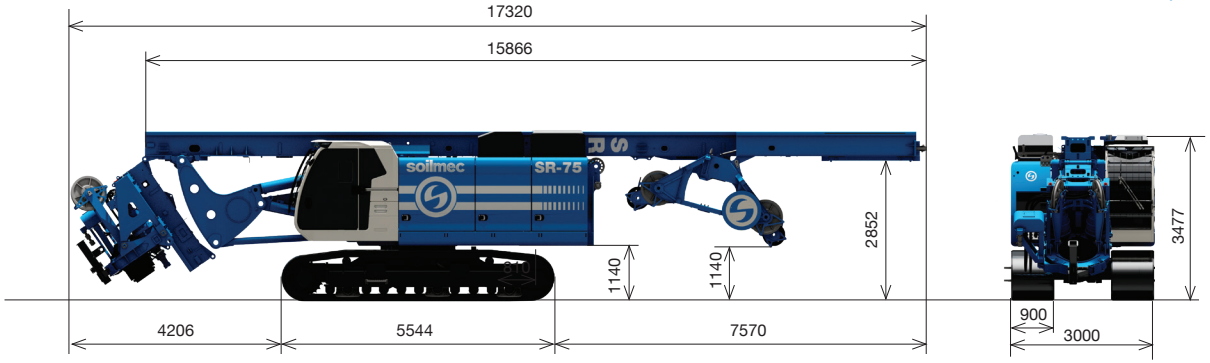
Transport,dimensions & weights

CFA QC STD



Transport in CFA configuration Quick Change and Direct Quick change version	standard	*standard*	extended	*extended*
Transport weight	**62200 kg**	*137126 lb*	**63300 kg**	*139553 lb*
Transport length	**15532 mm**	*51 ft*	**18632 mm**	*61 ft*
Transport width	**3000 mm**	*9.84 ft*	**3000 mm**	*9.84 ft*

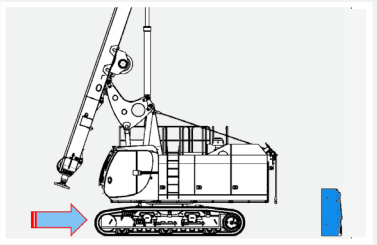
CFA 4-lines pull



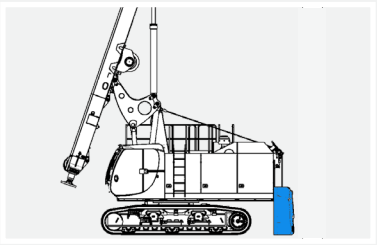
Transport in CFA configuration - 4 lines pull	extended version	*extended version*
Transport weight	**60200 kg**	*132718 lb*
Transport length	**17320 mm**	*56.8 ft*
Transport width	**3000 mm**	*9.84 ft*

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

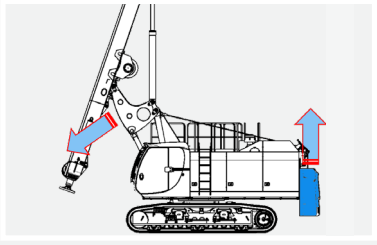
Self-mounting counterweight system



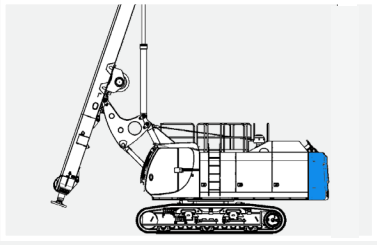
Step 1



Step 2



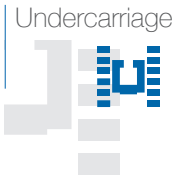
Step 3



Step 4

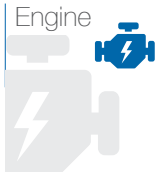
Technical data

Undercarriage



Undercarriage		
Type	variable gauge, telescopic side frames	variable gauge, telescopic side frames
Overall width with retracted crawlers	**2980 mm**	*117.32 in*
Overall width with extended crawlers	**4480 mm**	*176.38 in*
Width of triple grouser track shoes	**900 mm**	*35.43 in*
Overall length of crawlers	**5544 mm**	*218.27 in*
Traction force	**495 kN**	*111278 lbf*
Travelling speed	**0 - 1,6 km/h**	*0 - 1 mph*

Engine



Engine		
Engine model	**Cummins X12**	*Cummins X12*
Power rating	**336 kW @ 1800 rpm**	*450 HP @ 1800 rpm*
Engine conforms to Exhaust emission Standard	**EU stage V ***	*EU stage V **
Fuel tank capacity	**650 l**	*172 US gal*
AD Blue tank capacity	**57 l**	*15 US gal*

** Cummins QSM11 Tier 3 with air compressor*

Hydraulic system

Hydraulic system		
Main pumps flow	**2x 304 + 460 l/min**	*2x 80 + 121 US gal/min*
Third pump flow	**121 l/min**	*32 US gal/min*
Hydraulic oil tank capacity	**685 l**	*181 US gal*

Crowd system

CCS_Cylinder Crowd System		
Stroke	**6500 mm**	*255.91 in*
Crowd force pull (down/up)	**204 / 313 kN**	*45860 / 70364 lbf*
Speed up (slow/fast)	**5,4 / 14,4 m/min**	*17.72 / 47.24 ft/min*
Speed down (slow/fast)	**4 / 14,4 m/min**	*13.12 / 47.24 ft/min*
WCS_Winch Crowd System		
Stroke	**15800 mm ***	*622.05 in **
Crowd force pull (down/up)	**111 / 408 kN**	*24954 / 91720 lbf*
Speed up (slow/fast)	**6,8 / 29 m/min**	*28.31 / 95.14 ft/min*
Speed down (slow/fast)	**6,8 / 29 m/min**	*28.31 / 95.14 ft/min*

**optional: 18900mm (744 in) extended version.*

Winches

Main winch - standard		
Type	**controlled descent**	*controlled descent*
Model	**SW270**	*SW270*
Rope layers	**2**	*2*
Line pull (1st layer)	**270 kN**	*60697 lbf*
Rope diameter	**30 mm**	*1,18 in*
Rope speed (1st layer)	**81,6 m/min**	*268 ft/min*

Auxiliary winch		
Type	**controlled descent**	*controlled descent*
Rope layers	**2**	*2*
Line pull (1st layer)	**127 kN**	*28550 lbf*
Rope diameter	**22 mm**	*0.87 in*
Rope speed (1st layer)	**70 m/min**	*230 ft/min*

Noise

Noise		
Sound pressure level in cab c/w Tier 4f Engine	**109 dB**	*109 dB*
Sound power level c/w Tier 4f Engine	**71 dB**	*71 dB*
Vibration transmitted to the hand-arm system of the machine operator	**< 2.5 m/s²**	*< 8.2 ft/s²*
Vibration transmitted to the whole body of the machine operator	**< 0.5 m/s²**	*< 1.64 ft/s²*

FoW clearance

Front of wall clearance			
LDP - Large Diameter Pile - CCS version	**due to rotary [1]**	**570 mm**	*22.44 in*
LDP - Large Diameter Pile - WCS version	**due to rotary [1]**	**570 mm**	*22.44 in*
CFA - Continuous Flight Auger - 4 line pull - standard version	**due to swan neck**	**900 mm**	*35.43 in*
CFA - Continuous Flight Auger - 4 line pull - special version	**due to swan neck**	**900 mm**	*35.43 in*
CFA - Continuous Flight Auger - Quick change	**due to swan neck**	**900 mm**	*35.43 in*
CFA - Continuous Flight Auger - Direct Quick change	**due to swan neck**	**900 mm**	*35.43 in*
DP - Displacement Pile - Quick change	**due to swan neck**	**900 mm**	*35.43 in*
TJ - Turbo Jet - Quick change	**due to sleeve guide**	**820 mm**	*32.28 in*
VDW 1405 - Cased Secant Pile - Quick change	**due to VDW rotary**	**300 mm**	*11.81 in*
VDW 2010 - Cased Secant Pile - Quick change	**due to VDW rotary**	**310 mm**	*12.20 in*

[1] *w/o casing flange and drilling tool*

Configurations

	LDP Large Diameter Pile with kelly bar (WCS)	LDP Large Diameter Pile with kelly bar (CCS)	CFA Continuous Flight Auger Piles (4-lines pull)	CFA Continuous Flight Auger Piles (Quick Change)
UNDERCARRIAGE				
Variable gauge, telescopic side frames	●	●	●	●
Radio remote control for dismounting tracks	○	○	○	○
Mechanical prearrangement for casing oscillator	●	●	●	●
Hydraulic prearrangement for casing oscillator	○	○	n.a	n.a
VRM180KL casing oscillator	○	○	n.a	n.a
Radio remote control for tramming operation	●	●	●	●
UPPER STRUCTURE				
Diesel engine Cummins X12 Stage V – US EPA Tier 4F	●	●	●	●
Diesel engine Cummins QSM11 – US EPA Tier 3	○	○	○	○
Auto low idle system	●	●	●	●
Harness technology for electrical system	●	●	●	●
Electroproportional system	●	●	●	●
Automatic greasing package	○	○	○	○
Washer lancer	○	○	○	○
Compressor kit	○	○	○	○
Foldable catwalk with handrails	○	○	○	○
Removable catwalk with handrails	●	●	●	●
Acoustic & light alarm for tramming	●	●	●	●
Lighting led system package	●	●	●	●
Sound proofed canopies	●	●	●	●
Silent pack	○	○	○	○
Hydraulic prearrangement for additional technologies	●	●	●	●
Concrete pipe on turret	n.a	n.a	○	○
Mast ladder with parachute (only for no CE market)	○	○	○	○
CAB				
Falling object protective structure (FOPS)	●	●	●	●
Protective grille	●	●	●	●
Rearview mirrors	●	●	●	●
Comfort packakge	●	●	●	●
Sliding door	●	●	●	●
Sliding window	●	●	●	●
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	●	●	●	●
DMS ON BOARD adjustable monitor 12" touch screen	●	●	●	●
Surround view cameras with display in the cab	●	●	●	●
Inclinometer device with automatic verticality	●	●	●	●
WINCHES				
Main winch SW270 model - double layer	●	●	●	●
Load cell for main winch	●	●	●	●
Limit switch for rope winding and winches	●	●	●	●
Depthmeter for main winch	●	●	●	●
Anti-slack system for main winch	○	○	n.a	n.a
Service winch SW130 model	●	●	●	●
Load cell for service winch	●	●	●	●

	LDP Large Diameter Pile with kelly bar (WCS)	LDP Large Diameter Pile with kelly bar (CCS)	CFA Continuous Flight Auger Piles (4-lines pull)	CFA Continuous Flight Auger Piles (Quick Change)
Service rope holder	●	●	●	●
Swivel for service rope	○	○	○	○
ROTARY UNIT				
Rotary unit with automatic control; Max torque intermitted: 293 kNm (216.102 lbs*ft)	●	●	●	●
Replaceable drive ribs	●	●	●	●
Automatic greasing kit for cradle	●	●	●	●
Oil discharge conveying system	●	●	●	●
MAST				
Upper foldable mast element	●	●	●	●
Lower foldable mast element	●	●	●	●
Cathead greasing kit	○	○	○	○
Concrete pipe on mast	n.a	n.a	○	○
Package for long mast - upgraded version	○	○	n.a	○
KELLY BAR TECHNOLOGY				
Rotary sleeve with 3 ribs - for kelly bar 431 mm (17 in)	●	●	n.a	n.a
Package for kelly bar 406 mm (16 in)	○	○	n.a	n.a
Cardan joint	●	●	n.a	n.a
Flange for casing driving d.900 mm (35 in)	○	○	n.a	n.a
Flange for casing driving d.1300 mm (52 in)	●	●	n.a	n.a
Flange for casing driving d.1500 mm (59 in)	○	○	n.a	n.a
Automatic return to the centre hole	●	●	n.a	n.a
Automatic greasing kit for winch crowd	○	n.a	n.a	○
Telescopic mast foot	●	n.a	n.a	n.a
Drilling axis 1030 mm	●	●	n.a	n.a
Variable drilling axis from 1030 mm to 1180 mm	●	●	n.a	n.a
OTHER TECHNOLOGIES				
Sleeve 6 m (19.7 ft) long XHD-5	n.a	n.a	○	○
Sleeve 8 m (20.2 ft) long 25HD-5	n.a	n.a	○	○
Package for CFA 21 m (69 ft) auger length	n.a	n.a	●	n.a
Package for CFA 19,5 m (64 ft) auger length	n.a	n.a	○	n.a
Package for CFA 17 m (56 ft) auger length	n.a	n.a	n.a	●
Package for CFA 20 m (66 ft) auger length	n.a	n.a	n.a	○
DMS ON BOARD with automatic auger lifting	n.a	n.a	●	●
Autodrilling package	n.a	n.a	○	○
Autorotary package	n.a	n.a	○	○
Additional pull-down winch	n.a	n.a	○	○
Hydraulic universal openable lower guide d.1200mm (47.2 in)	n.a	n.a	●	●
Auger cleaner star type	n.a	n.a	○	○
Double roller auger cleaner d.1200 mm (47.2 in)	n.a	n.a	○	○
Pressure transducer kit	n.a	n.a	●	●
Wi-fi sensor for concrete pressure	n.a	n.a	○	○
Warning system for CFA sleeve extension coupling	n.a	n.a	●	●
Hydraulic prearrangement for VTH-1 vibrator	n.a	n.a	○	○
Additional package for VDW technology 15,1 m (49.5 ft) cased depth	n.a	n.a	n.a	○
Additional package for VDW technology 18 m (59 ft) cased depth	n.a	n.a	n.a	○
Add. package for DP/TCT/DTH technology: 30,4 m (100 ft) depth with lattice extension	n.a	n.a	n.a	○
Add.package for TJ technology: 30,4 m (100 ft) depth with lattice extension	n.a	n.a	n.a	○
Direct pull CFA	n.a	n.a	n.a	●

● standard ○ optional n.a. not available

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