

# SR-65

BLUE TECH 

**soilmec**   
Drilling and Foundation Equipment





# What Drillers Want!

The SR-65 Evo has been upgraded to the Blue Tech version which includes a redesigned operator cabin, new hydraulics and mechanics for an improved efficiency.

Designed around a new energy-saving architecture, the next generation SR-65 Blue Tech is a rig that meets the demands of productivity, flexibility and functionality across all drilling setups and technologies.



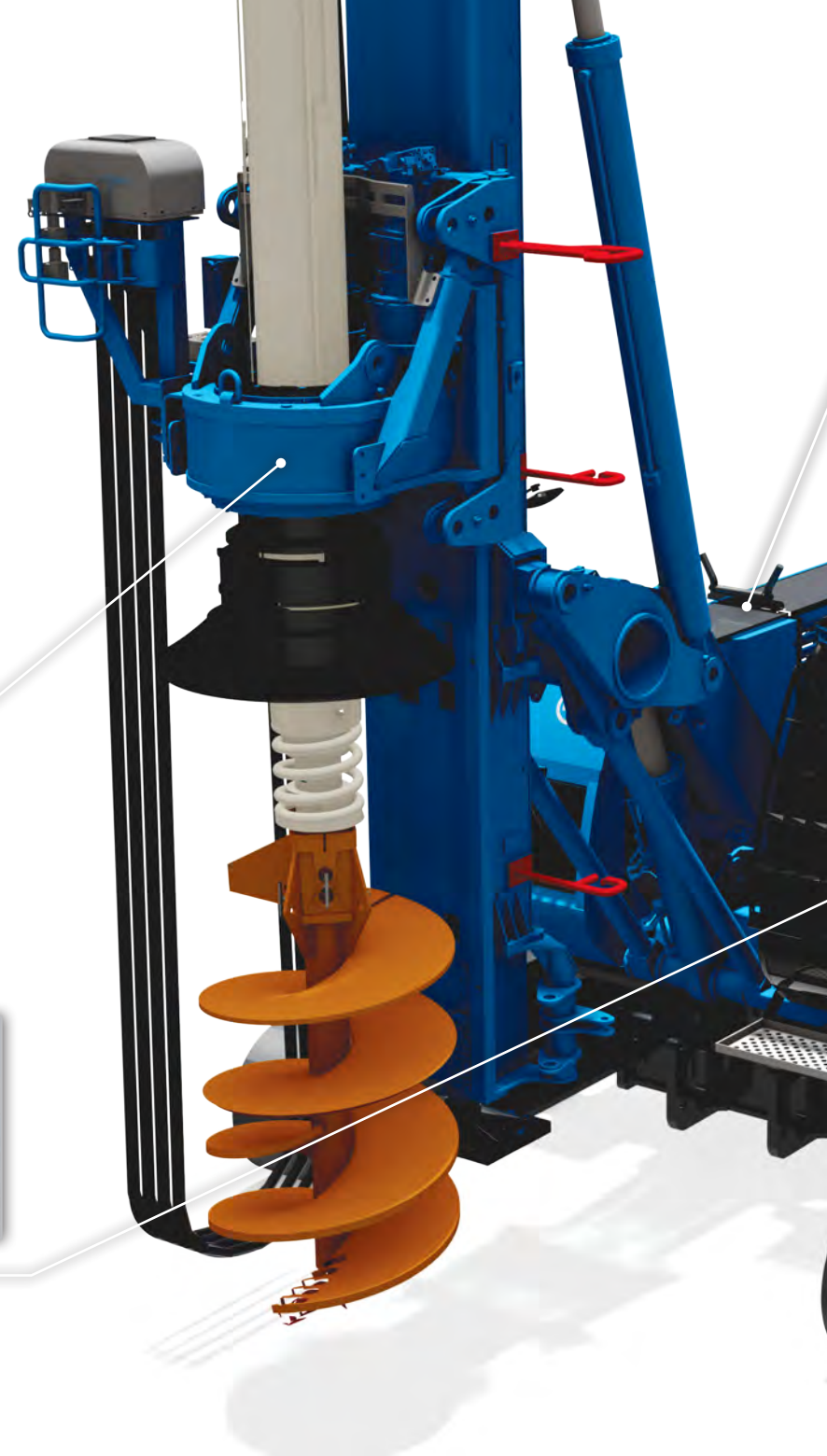
## Higher performance

- Automatic control of rotary motors
- More power on the tool
- + 8% Diesel engine power available



## More efficient

- Optimized lines to the rotary for cutting power loss
- Diesel engine – Auto low idle control for fuel saving
- Main pump with Load Sensing system
- - 5% fuel consumption





## Truly multipurpose

- 5 technologies: LDP, CFA, DP/TCT, TJ and VDW
- Many versions: WCS, CCS, Segmental Mast, LHR, Quick Change, 4-lines pull and the latest ETCW Direct pull



## Environment-friendly

- Complies with the most stringent emission rules
- Lower CO2 emissions
- Improved combustion and cooling efficiency
- Noise reduction



## Proven ergonomics

Sliding door, fully adjustable pneumatic suspension seat, new joysticks and keyboards



## Great visibility

Polycarbonate roof and stratified front glass allow to work without protection grids, LED lights with anti-glare technology and CCTV camera system with dedicated 7" display



## Most comfortable

Powerful HVAC system with recirculating air, USB port, USB or wireless phone charger mount, locked glove boxes (one is air-conditioned), a large compartment for placing helmet and jacket, two dual cupholders and a file folder



## Always connected!

- DMS On Board 4.0
- DMS PC for a complete production analysis
- DMS Manager a cloud service for superior fleet supervision



# Built for outstanding Segmental Casing performance

- Long casing elements can be used to reduce handling time and increase the productivity
- High torque to drill deeper and bigger piles
- Extraordinary and effective pull-up force to extract heavier casing
- Fast drilling and high speed discharging







# SR-65 Blue Tech

## One rig, many opportunities

- Plug & Play kits for a faster conversion to any technology
- Machine settings performed by DMS on board
- Direct Quick Change version for a quicker conversion to CFA/DP/TCT/TJ technologies
- Unified cathead in CCS and WCS and CFA Quick Change
- Same foot element for both Kelly & CFA
- Modular mast to set the machine in LHR configuration by simply removing the upper element

125 technologies  
versions



SR-65 Blue Tech

SR-65 Blue Tech

# Your safety is our priority

- Improved direct visibility on right-side through new compact hydraulic compartment
- Camera systems for 360° visibility, giving a clear surround view of the rig
- Powerful led lights with antiglare technology
- Cab platform access with handrails
- Lowest noise emission in its segment
- Radio remote control for safer load/unload and tramping operations
- Automatic white sound alarm during rig travelling and turret rotation
- Warning system for sleeve extension coupling for CFA / DP / TJ technologies (patent pending).





SR-65 Blue Tech

# The answer to all your job site needs



- **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 for longer rope operation life
- **Automatic Mast Raising (Patented).** Automatic tensioning of main and service winch ropes during mast raising and boom adjustment to ease the operations during drilling/transport/maintenance phases
- **Automatic return to centre hole.** Designed to speed up the discharging phase. Very high slewing precision, for a perfect centering of the casing of the kelly bar. One word: faster cycle
- **Locking kelly bar visualization system.** Real time display of locking connection area to simplify the operator job and to protect the rig against wearing and tearing
- **CFA Autodrilling.** An automatic device for CFA mode to control and to optimize the drilling parameters
- **CFA Autorotary (Rotary Revolutions Speed Control).** The operator can activate this function by a dedicated pedal or through joystick
- **Drilling axis variation.** Easy and fast conversion
- **Potentiometers main functions** in order to manually set up of the drilling parameters
- **Easy maintenance,** automatic lubrication of all the necessary greasing points in kelly and CFA versions
- **Auxiliary cable support device,** easily accessible by the banksman
- **Rotary cradle sliding guide replaceable** w/o dismantling the rotary

SOILMEC

Unique.







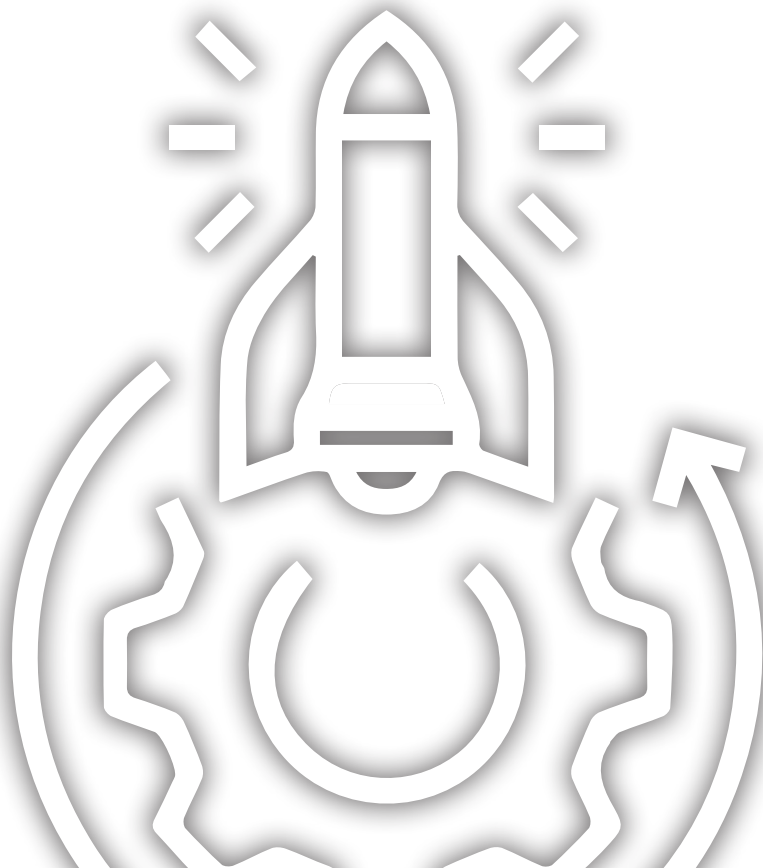
SR-65 Blue Tech

# Transport and start up never been so smart

Less than 30 minutes from truck to piling

Quick and efficient mobilization

Rapid start up on job site



Transport

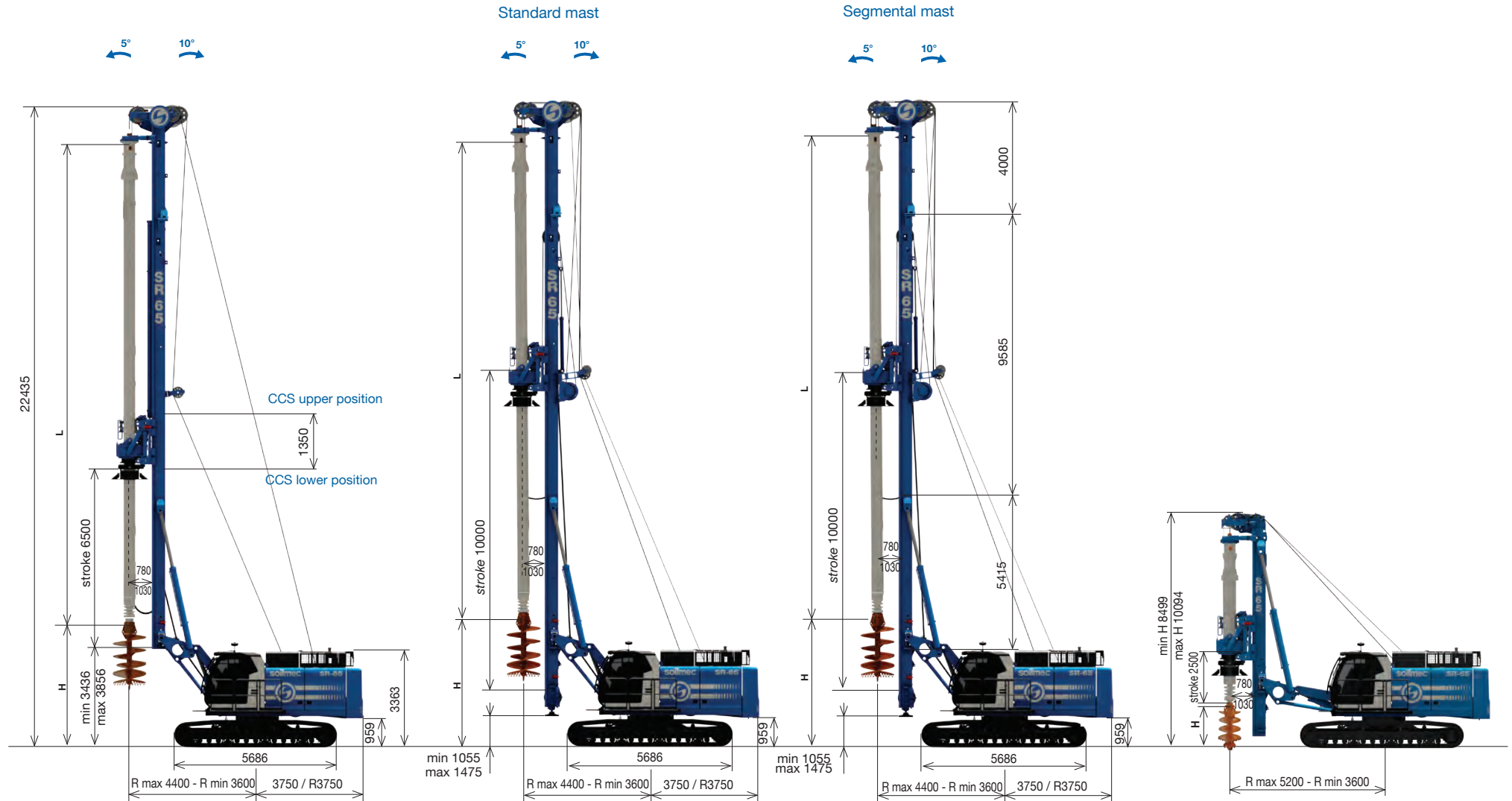


# Large Diameter Piles

Cylinder Crowd System

Winch Crowd System

Low Head Room





## Kelly bars for LDP

LDP - Large Diameter Piles - CCS version		
Operating weight w/o kelly bar <sup>1-6</sup>	56500 kg	124560 lb
Max pile diameter (tool along the mast)	1500 mm	59 in
Max pile diameter c/w increased drilling axis <sup>2</sup> (tool along the mast)	2000 mm	79 in
Max pile diameter w/o lower mast section (tool below the mast)	3000 mm	118 in
Working radius <sup>3</sup>	3600 - 4400 mm	142 - 173 in
Tail swing radius	3750 mm	148 in
Max pile depth - friction kelly	77,9 m	256 ft
Max pile depth - locking kelly	62,5 m	205 ft

LDP - Large Diameter Piles - WCS version		
Operating weight w/o kelly bar <sup>1-7</sup>	58700 kg	129410 lb
Max pile diameter (tool along the mast)	1400 mm	55 in
Max pile diameter c/w increased drilling axis <sup>2</sup> (tool along the mast)	1900 mm	75 in
Max pile diameter w/o lower mast section (tool below the mast)	3000 mm	118 in
Working radius <sup>3</sup>	3600 - 4400 mm	142 - 173 in
Tail swing radius	3750 mm	148 in
Max pile depth-friction kelly	77,7 m	255 ft
Max pile depth-locking kelly	62,3 m	204 ft

LHR - Large Diameter Piles - CCS version		
Operating weight w/o kelly bar <sup>4</sup>	52900 kg	116625 lb
Min / Max operating height <sup>5</sup>	8,5 / 10	28 / 33 ft
Cylinder crowd system stroke	2500 mm	98 in
Crowd force pull (down/up)	140 / 280	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

<sup>1</sup> Complete with engine Stage 5 version - In Tier3 version operating weight is reduced by 500 kg (1102 lb)

<sup>2</sup> Package on request

<sup>3</sup> Radius with increased drilling axis: 3850 - 4400 mm (152 - 173 in)

<sup>4</sup> For 1,5 m (5 ft) mast extension version weight increased by 650 kg (1433 lb)

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

<sup>6</sup> For segmental mast version weight increased by 870 kg (1918 lb)

<sup>7</sup> For segmental mast version weight increased by 720 kg (1587 lb)

	Kelly type	Kelly dimens.	Drilling <sup>1-6</sup> depth		Weight		L Length		H <sup>7</sup>				WCS	
			m	ft	ton	<sup>US</sup> ton	m	ft	CCS Low pos.		CCS High pos.		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
	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
4 parts	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
5 parts	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
	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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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	
LHR	BL HD <sup>3</sup>	4 x 4,5	13,2	43.3	3,0	3.3	5,5	18.0	1,64	5.4	3,23	10.6		
	BL HD <sup>3</sup>	4 x 5	15,6	51.2	3,2	3.5	6,08	19.9	1,04	3.4	2,64	8.7		
	BL HD <sup>3</sup>	4 x 5,5	17,6	57.7	3,4	3.7	6,6	21.6	0,54	1.8	2,14	7.0		
	BL HD <sup>4</sup>	4 x 6	19,2	63.0	3,7	4.1	7,0	22.9	1,64	5.4	3,23	10.6		
	BL HD <sup>4</sup>	4 x 7	23,6	77.4	4,1	4.5	8,1	26.5	0,54	1.8	2,14	7.0		
	BL HD <sup>5</sup>	4 x 4,5	14,1	46.3	3,0	3.3	5,5	18.0	3,14	10.3	4,73	15.5		
	BL HD <sup>5</sup>	4 x 5,5	16,1	52.8	3,4	3.7	6,6	21.6	2,04	6.7	3,64	11.9		
	FR HD <sup>3-2</sup>	5 x 4,5	17,1	56.1	3,2	3.5	5,5	18.0	1,64	5.4	3,23	10.6		
	FR HD <sup>3-2</sup>	5 x 5,5	22,5	73.8	3,7	4.1	5,6	21.6	0,54	1.8	2,14	7.0		
	FR HD <sup>4-2</sup>	5 x 6	24,6	80.7	4,0	4.4	7,0	22.9	1,64	6.4	3,23	10.6		
FR HD <sup>4-2</sup>	5 x 7	30,0	98.4	4,4	4.9	8,1	26.5	0,54	1.8	2,14	7.0			
FR HD <sup>5-2</sup>	5 x 5	18,5	60.7	3,5	3.9	6,1	19.9	2,54	8.3	4,14	13.6			
FR HD <sup>5-2</sup>	5 x 5,5	21,0	68.9	3,7	4.1	6,6	21.6	2,04	6.7	3,64	11.9			

<sup>1</sup> 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 -200 mm (0.65 ft); drilling depth with tool 1500 mm (4.9 ft) long.

<sup>2</sup> Rotary head derate

<sup>3</sup> LHR standard version. Operating height max 8,5 m (28 ft)

<sup>4</sup> LHR mast extended version. Operating height max 10 m (32.8 ft) with CCS in low position

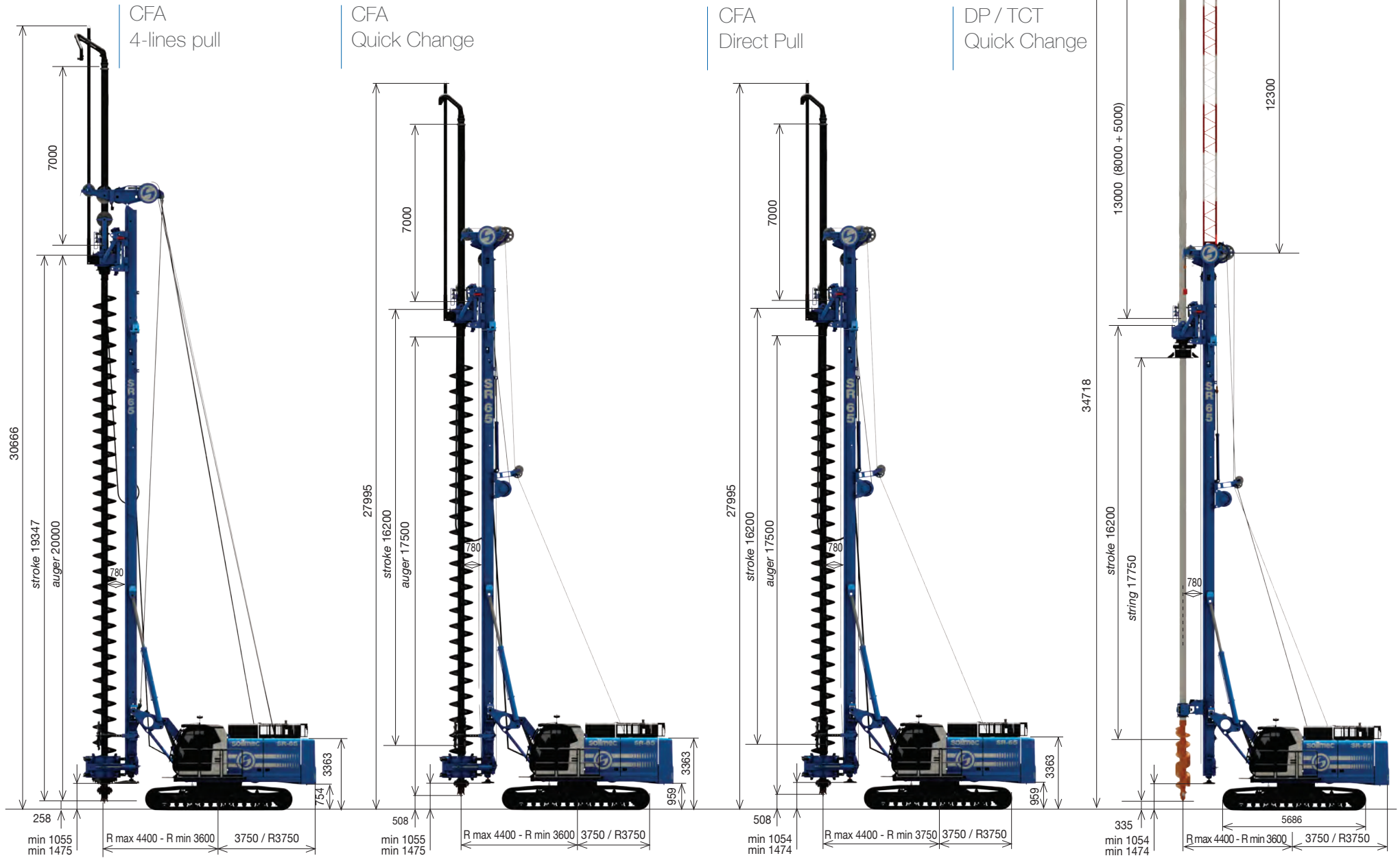
<sup>5</sup> LHR mast extended version. Operating height max 10 m (32.8 ft) with CCS in high position

<sup>6</sup> Drilling depth are referred to R max, with R min the drilling depth reduced by - 1,6 m (5.2 ft)

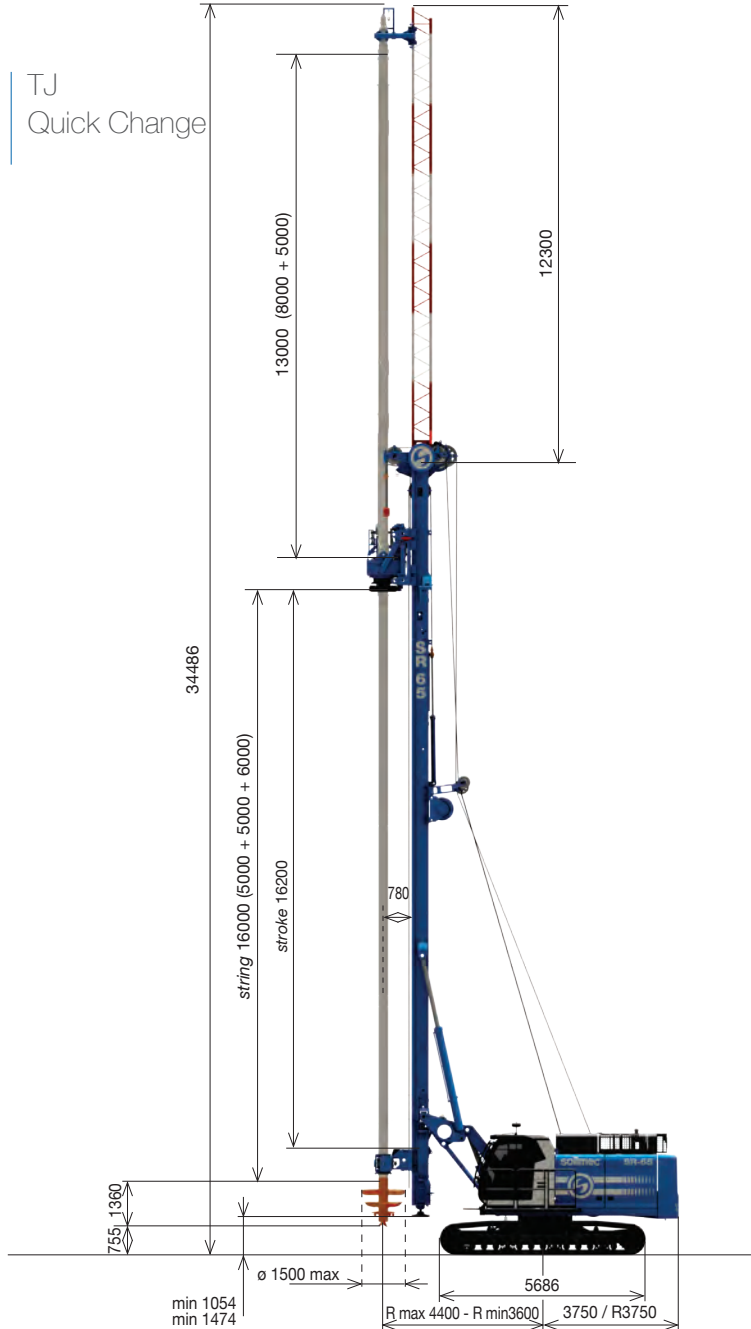
<sup>7</sup> The H value for the LHR version are referred to R max - R min



# CFA / DP / TJ applications



TJ  
Quick Change



CFA - Continuous Flight Auger - 4-lines pull	standard version		extended version <sup>5</sup>	
Operating weight (c/w 1100 kg - 2425 lb auxiliary cwt, 7 m - 23 ft sleeve extension, w/o auger) <sup>6</sup>	61200 kg	134922 lb	63000 kg	138890 lb
Max pile diameter	1200 mm	47 in	750 mm	30 in
Max length of auger	20 m	66 ft	23 m	75 ft
Max length of sleeve extension	8 m	26 ft	8 m	26 ft
Max pile depth (c/w 8 m - 26 ft sleeve extension) <sup>1</sup>	26,9 m	88 ft	30 m	98 ft
Nominal extraction force	620 kN	139379 lbf	450 kN	101162 lbf
Additional crowd force on auger <sup>2</sup>	100 kN	22481 lbf	100 kN	22481 lbf
CFA - Continuous Flight Auger - Quick change	standard version			
Operating weight (c/w 7 m - 23 ft sleeve extension, w/o auger) <sup>7</sup>	60500 kg		133378 lb	
Max pile diameter	1200 mm		47 in	
Max length of auger	17,5 m		57 ft	
Max length of sleeve extension	8 m		26 ft	
Max pile depth (c/w 8 m - 26 ft sleeve extension) <sup>1</sup>	23,5 m		77 ft	
Nominal extraction force	550 kN		123643 lbf	
Nominal crowd force on auger	330 kN		74186 lbf	
CFA - Continuous Flight Auger - Direct Quick change	standard version			
Operating weight (c/w 7 m - 23 ft sleeve extension, w/o auger) <sup>7</sup>	60500 kg		133378 lb	
Max pile diameter	1200 mm		47 in	
Max length of auger	17,5 m		57 ft	
Max length of sleeve extension	8 m		26 ft	
Max pile depth (c/w 8 m - 26 ft sleeve extension) <sup>1</sup>	23,5 m		77 ft	
Nominal extraction force	330 kN		74186 lbf	
Nominal crowd force on auger	330 kN		74186 lbf	
DP/TCT - Displacement Pile - Quick change <sup>4</sup>	standard version			
Operating weight (w/o string and tool) <sup>7</sup>	60500 kg		133378 lb	
Max recommended DP pile diameter	600 mm		24 in	
Max recommended TCT pile diameter	800 mm		31 in	
Max length of string	17,7 m		58 ft	
Max pile depth w/o lattice boom extension c/w 8 m (26 ft) string ext.	23,5 m		77 ft	
Lattice boom extension length	12,3 m		40 ft	
Max pile depth c/w lattice boom extension	28,5 m		94 ft	
TJ - Turbojet® - Quick change <sup>4</sup>	standard version			
Operating weight (w/o string and tool) <sup>7</sup>	60500 kg		133378 lb	
Max recommended TJ pile diameter <sup>3</sup>	1400 mm		55 in	
Max length of string	17,5 m		57 ft	
Max pile depth w/o lattice boom extension c/w 6 m (19.6 ft) string ext.	21,2 m		70 ft	
Lattice boom extension length	12,3 m		40 ft	
Max pile depth c/w lattice boom extension	28,2 m		93 ft	

<sup>1</sup> depth reduced of 1,3 m (4.3 ft) with roller auger cleaner

<sup>2</sup> package on request - depth reduced by 0,6 m (2 ft)

<sup>3</sup> Ø 1900 mm (75 in) in ECTW configuration

<sup>4</sup> DP/TCT and TJ are also available with 4-lines pull version or Direct Quick change

<sup>5</sup> by a special kit on request

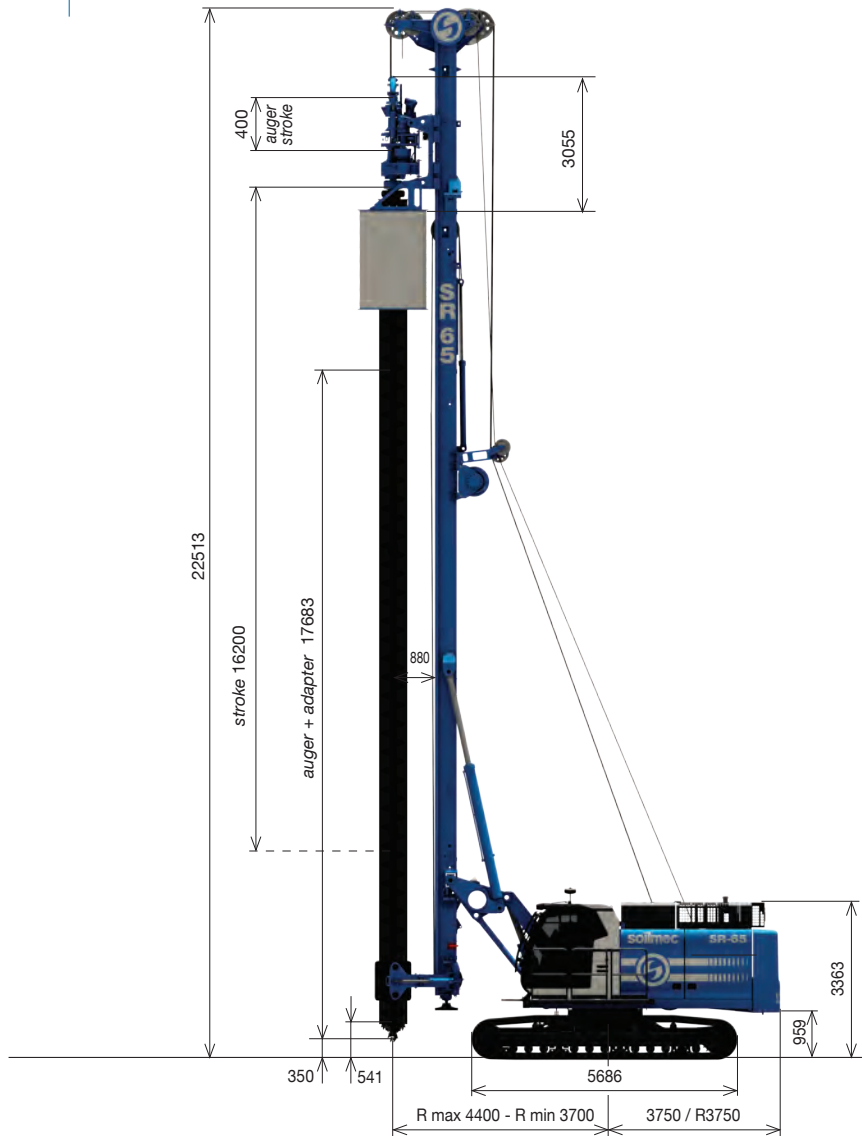
<sup>6</sup> for segmental mast version weight increased by 870 kg ( 1918 lb)

<sup>7</sup> for segmental mast version weight increased by 720 kg ( 1587 lb)



# CSP/VDW applications

Quick Change



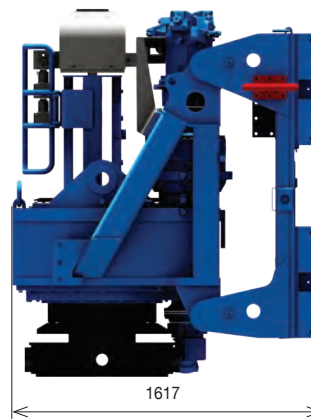
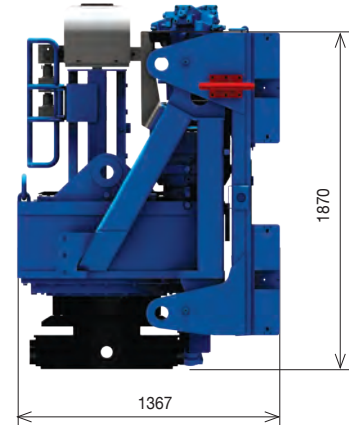
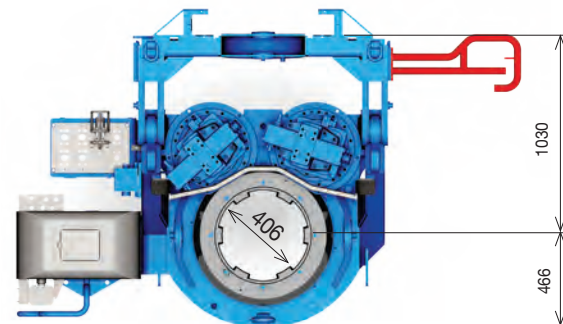
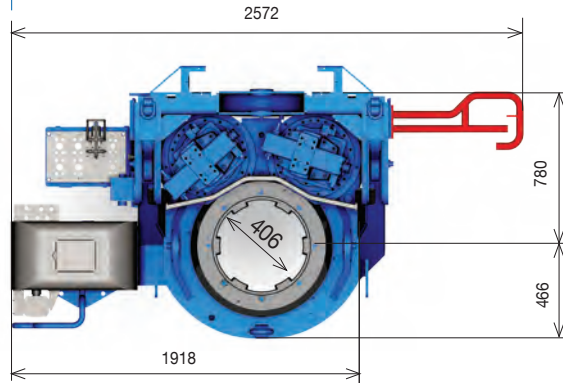
VDW 1005 - Cased Secant Piles - Quick change		standard version
Operating weight (w/o auger and casing)	65600 kg *	144623 lb *
Max pile diameter	610 mm	24 in
Max augered depth	15,7 m	52 ft
Max cased depth	15,5 m	51 ft
Casing max torque	98,5 kNm	72649 lb*ft
Max casing speed rotation	15 rpm	15 rpm
Auger max torque	49,3 kNm	36361 lb*ft
Max auger speed rotation	30 rpm	30 rpm
Nominal auger pull up/down	500 / 250 kN	112403 / 56201 lbf
Nominal casing pull up/down	500 / 250 kN	112403 / 56201 lbf

VDW 1407 - Cased Secant Piles - Quick change		standard version
Operating weight (w/o auger and casing c/w additional counterweight)	67400 kg *	148591 lb *
Max pile diameter	610 mm	24 in
Max augered depth	15,7 m	52 ft
Max cased depth	15,5 m	51 ft
Casing max torque	140 kNm	103259 lb*ft
Max casing speed rotation	10,7 rpm	10.7 rpm
Auger max torque	70 kNm	51629 lb*ft
Max auger speed rotation	21,4 rpm	21.4 rpm
Nominal auger pull up/down	500 / 250 kN	112403 / 56201 lbf
Nominal casing pull up/down	500 / 250 kN	112403 / 56201 lbf

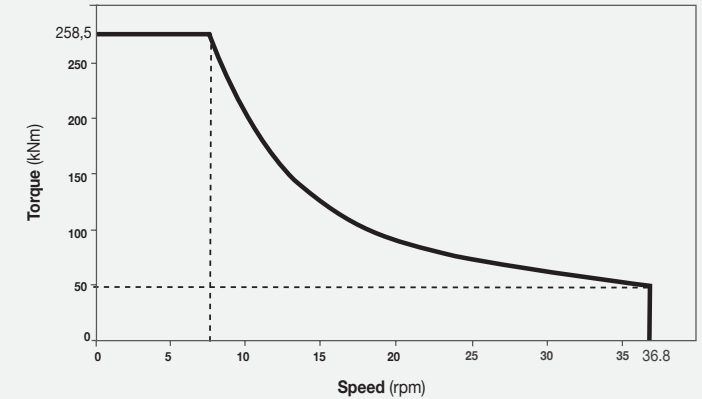
\* For segmental mast version weight increased by 720 kg (1587 lb)

# 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/15.6 in Kelly bar of other Soilmec 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.

The variable drilling axis device (from 780 mm to 1030 mm / 30.7 in to 40.6 in) ensures the maximum geometric clearance in front of the mast.

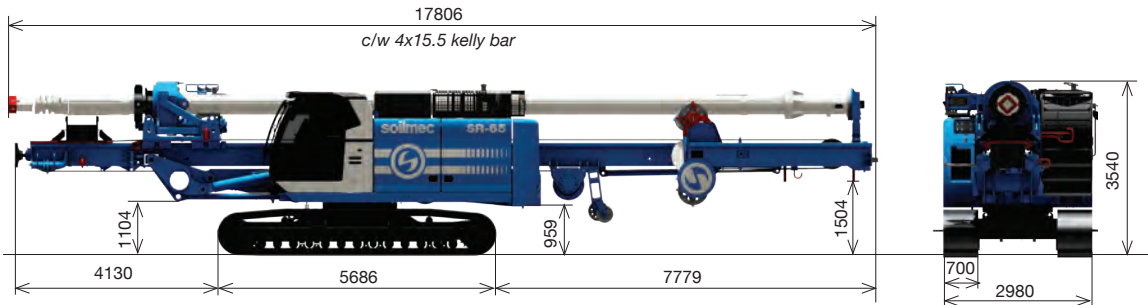
Rotary		
Type	Spin-off type	Spin-off type
Max torque (intermittent)	258,5 kNm	190657 lb <sup>f</sup> ·ft
Rated torque	240 kNm	177012 lb <sup>f</sup> ·ft
Max drilling speed	36,8 rpm	36.8 rpm
Spin off speed	135 rpm	135 rpm
Weight (w/o cradle, casing flange and cardan joint)	~ 3250 kg	~ 7165 lbs



# Transport

## Dimensions and Weights

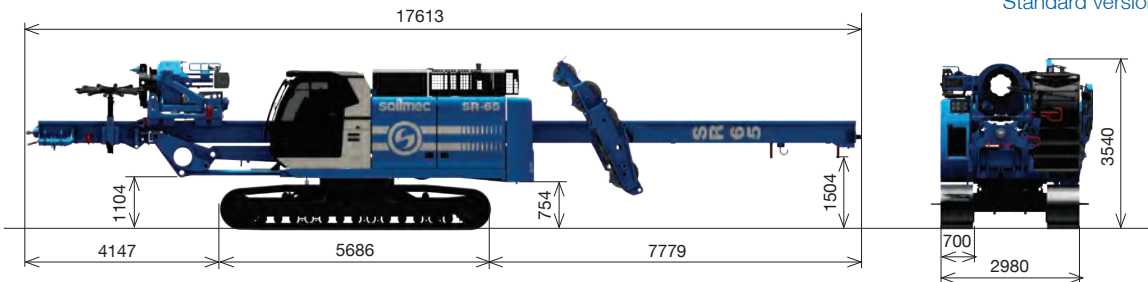
Winch Crowd System



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

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

4-lines pull  
Standard version



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

Includes base carrier Stage V, 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).

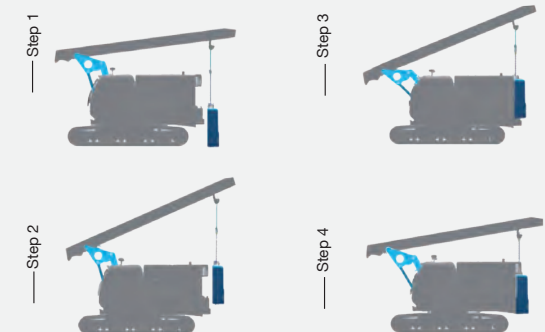
Thanks to a special optional, the new SR-65 can also reach the weight of 49.9 tons (110,000 lbs) by removing the counterweight and the kelly bar which does not need any auxiliary lifting equipment.

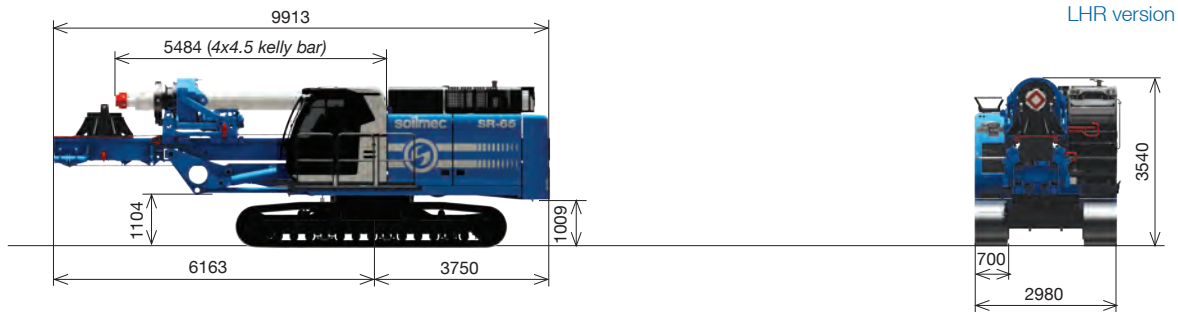
Soilmec is well aware of the job site needs and of importance of the start-up times.

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

Moreover the SR-65 set in segmental mast version with removable sides undercarriage is able to get an exceptionally minimum transport weight of not even 30 tons (66000 lb).

## Self mounting counterweight (optional package)

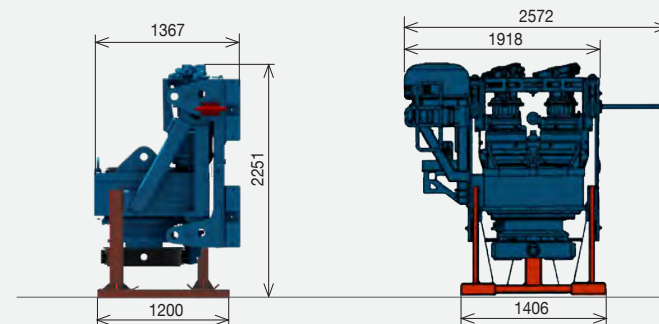




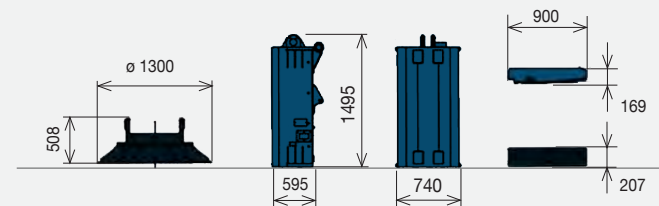
LHR version

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

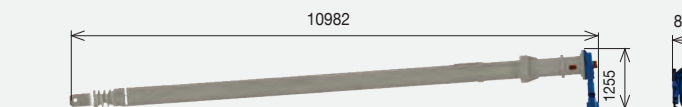
Includes base carrier Stage V, complete rotary, counterweight, kelly bar 4x4.5m, w/o tool.  
\* w/o kelly and kelly guide, w/o rotary, w/o rotary cradle, c/w counterweight



Special undercarriage version



Transport - CCS version - Segmental mast - Special undercarriage - Main parts		
<b>Main frame - Base machine weight</b>	<b>29150 kg</b>	<b>64265 lb</b>
<b>Mast weight c/w support</b>	<b>5720 kg</b>	<b>12610 lb</b>
<b>Kelly bar 4x9 c/w guide for variable drilling axis weight</b>	<b>5500 kg</b>	<b>12125 lb</b>
<b>Undercarriage side frames</b>	<b>2 x 6100 kg</b>	<b>2 x 13448 lb</b>
<b>Counterweight weight</b>	<b>7500 kg</b>	<b>16535 lb</b>
<b>Rotary weight c/w support</b>	<b>5210 kg</b>	<b>11486 lb</b>
<b>Flange</b>	<b>550 kg</b>	<b>1213 lb</b>
<b>Mast foot</b>	<b>450 kg</b>	<b>992 lb</b>
<b>Additional counterweight</b>	<b>200 kg</b>	<b>441 lb</b>





# Technical data

## 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 <sup>1</sup>	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
- Travelling speed	1,8 km/h	1.1 mph

<sup>1</sup> Special undercarriage c/w removable side frames available on request, dimension 750x4450x5676 mm (30x175x223 in)

## Engine

Engine		
- Model <sup>2</sup>	Cummins L 9	Cummins L 9
- Power rating <sup>3</sup>	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	57 l	15 US gal
- Fuel tank capacity	500 l	132 US gal

<sup>2</sup> Cummins QSL 9 - US EPA Tier3 available on request - power rating 272 kW (365 HP) @ 2100 rpm, max power 280 kW (376 HP) @ 1900 rpm

<sup>3</sup> Max power available 283 kW (380 HP) @ 1800 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

## 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

WCS rotary stroke reduced to 8650 mm (28.4 ft) w/o mast foot

## 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 Stage V Engine	77 dB(A)	77 dB(A)
- Sound power level c/w Stage V Engine	106 dB(A)	106 dB(A)
- Vibration transmitted to the hand-arm system of the machine operator	< 2.5 m/s <sup>2</sup>	< 2.5 m/s <sup>2</sup>
- Vibration transmitted to the whole body of the machine operator	< 0.5 m/s <sup>2</sup>	< 0.5 m/s <sup>2</sup>

## H-cab

Soilmec new 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

## UNDERCARRIAGE

Variable gauge, telescopic side frames	●
Variable gauge, telescopic removable side	○
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 tramming operation	●

## UPPER STRUCTURE

Diesel engine QSL L9 EU Stage IIIA – US EPA Tier 3	○
Diesel engine L9 EU Stage V – US EPA Tier 4F	●
Start and slow system	●
Harness technology for electrical system	●
Automatic Greasing package	○
PTO kit for washing lancer	○
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 tramming	●
Lighting led system package	●
Sound proofed canopies	●

## CAB

Front protective grille	●
Falling object protective structure (FOPS)	●
Rearview mirrors	●
Comfort package (cup holder, radio, A/C system, USB port & 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

Segmental mast	●
Monolithic mast	○
Mast guide cleaner	○
Kit for assisted rasing mast ( <i>patented</i> )	○
Lower foldable mast element	●
Hydraulic cathed folding kit	○
Cathed greasing kit	○
Double positioning of cylinder ( n.a. in LHR version)	●

## KELLY BAR TECHNOLOGY

Rotary sleeve with 3 ribs	●
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Rotary sleeve with 6 ribs	○
Spin off discharging system	●
"Click-click" discharging system	○
Cardan joint	●
Flange for casing driving d.1300 mm (51.1 in)	●
Flange for casing driving d.1500 mm (59 in)	○
Flange for casing driving d.1700 mm (66.9 in)	○
Variable drilling axle	●
Automatic return to the centre hole	○
Kelly bar guide	●
Air compressor kit	○

## OTHER TECHNOLOGY

Sleeve 6 m (19.7 ft) long XHD-5 or 25HD-5	●
Sleeve 7 m (23 ft) long XHD-5 or 25HD-5	●
Sleeve 8 m (27.8 ft) long XHD-5 or 25HD-5	●
Package for CFA std & direct quick change 17,5 m (57 ft) auger length	●
Package for CFA 4-lines pull 20 m (66 ft) auger length	●
Package for CFA 4-lines pull 23 m (75 ft) auger length	●
DMS ON BOARD with automatic auger lifting	●
Autodrilling package	●
Autorotary package	●
CFA 4-lines pull additional pull-down winch 100 kN (22481 lbf)	●
Hydraulic universal openable lower guide d.1200mm (47.2 in)	●
Auger cleaner star type	●
Double roller auger cleaner d.1200 mm (47.2 in)	●
Two pressure transducers kit	●
WiFi sensore for concrete pressure	●
Warning system for CFA sleeve extension coupling ( <i>patent pending</i> )	●
Hydraulic prearrangement for VTH-1 vibrator	●
Add. package for VDW technology 15,5 m (51 ft) cased depth	●
Add. package for VDW 1005	●
Add. package for VDW 1407	○
Add. package for DP/TCT technology 28,5 m (95 ft) depth with lattice ext.	●
Add. package for TJ technology 28,2 m (93 ft) depth with lattice ext.	●
Add. package for ECTW - Direct pull configuration	●

\* The technology package is only referred to the machine set up in this specific version



A close-up photograph of a muddy tire tread on a dirt surface. The tire is in the foreground, showing deep grooves filled with dark brown mud. The background is a blurred dirt road with a blue and yellow object, possibly a piece of machinery, in the distance.

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

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#muddyboots