

Hydraulic Rotary Rig

# SR-65

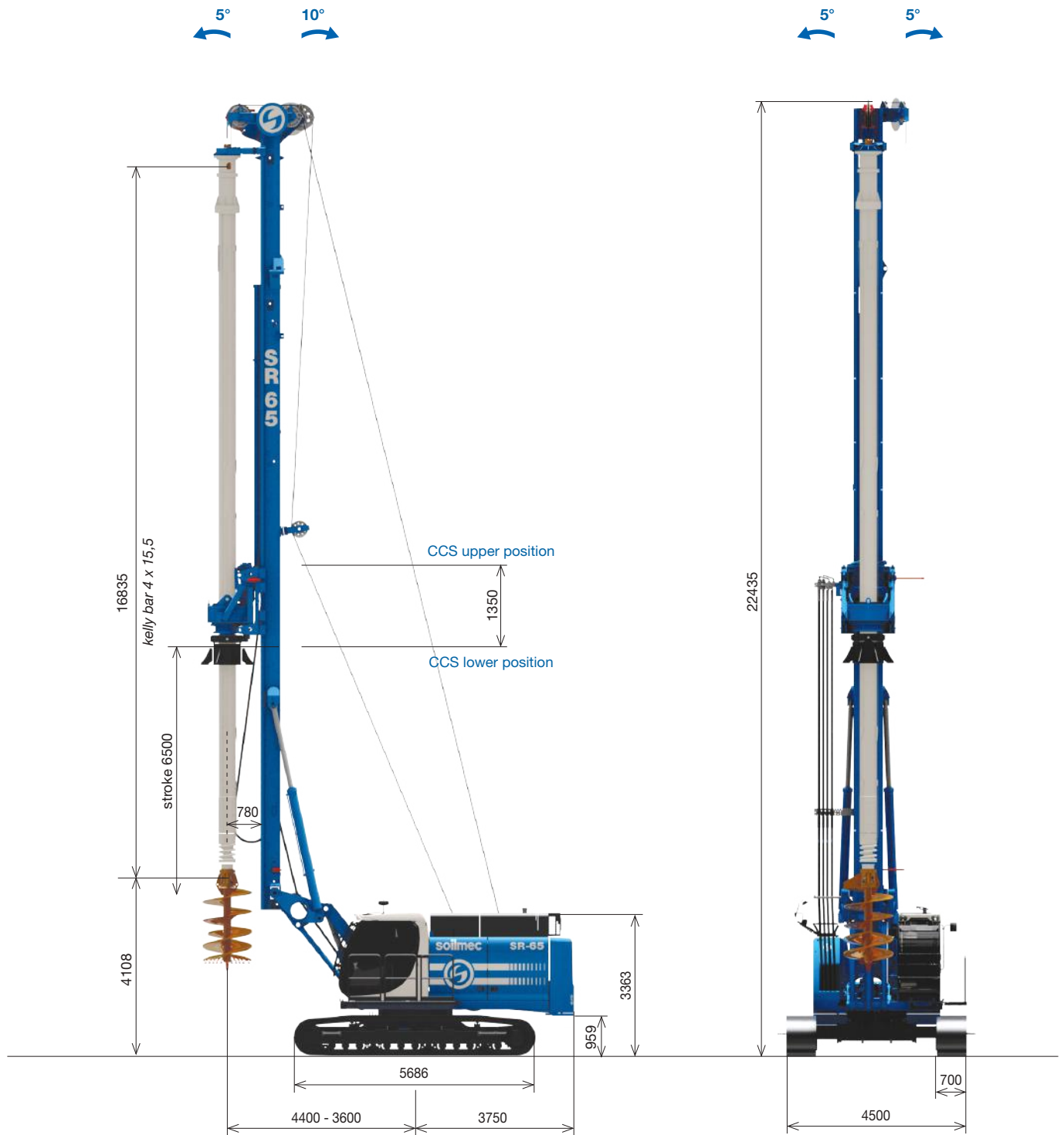
## EVO



**soilmec**   
Drilling and Foundation Equipment

# SR-65 EVO Hydraulic Rotary Rig

## LDP APPLICATIONS - Cylinder Crowd System



### LDP - Large Diameter Piles - CCS version

<b>Operating weight</b> c/w 4x13,5 kelly bar	<b>63600 kg</b>	<b>140213 lb</b>
<b>Max pile diameter along mast</b>	<b>1500 mm</b>	<b>59 in</b>
<b>Max pile diameter</b> c/w increased drilling axis along mast	<b>2000 mm</b>	<b>79 in</b>
<b>Max pile diameter</b> w/o lower mast section, tool below mast	<b>3000 mm</b>	<b>118 in</b>
<b>Max pile depth-friction kelly</b>	<b>77,9 m</b>	<b>256 ft</b>
<b>Max pile depth-locking kelly</b>	<b>62,5 m</b>	<b>205 ft</b>

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## LDP APPLICATIONS - Winch Crowd System

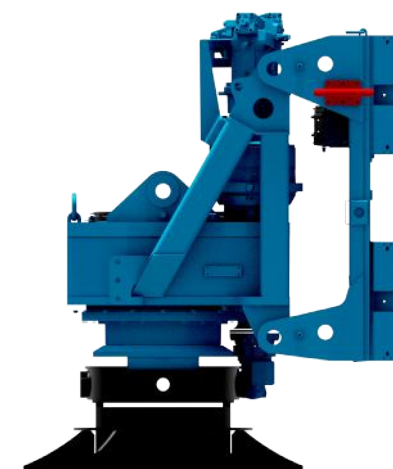
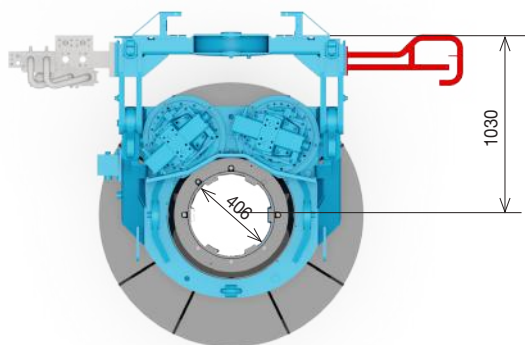
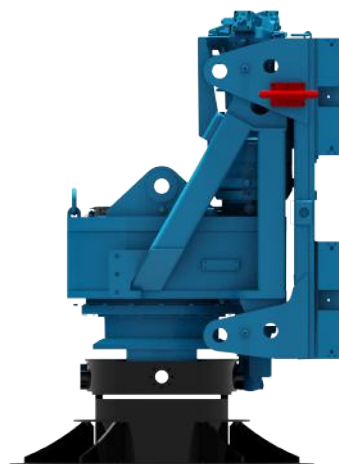
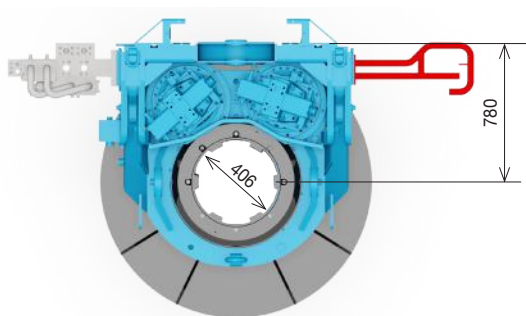


### LDP - Large Diameter Piles - WCS version

Operating weight c/w 4x13,5 kelly bar	65800 kg	145063 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

## SR-65 EVO Hydraulic Rotary Rig

ROTARY TABLE - Increasing drilling axis

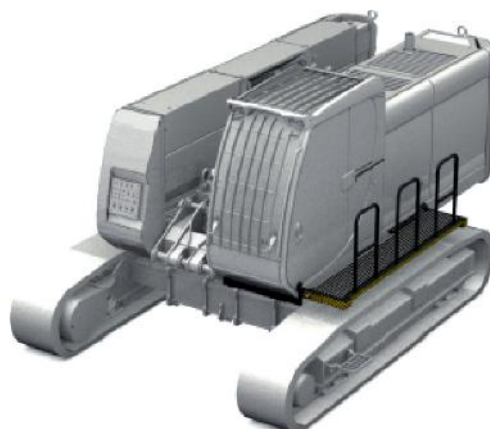


Rotary drive	Spin-off type	Spin-off type
<b>Max torque</b> (intermittent)	<b>258,5 kNm</b>	<b>190657 lbf*ft</b>
<b>Rated torque</b>	<b>240 kNm</b>	<b>177012 lbf*ft</b>
<b>Max drilling speed</b>	<b>36,8 rpm</b>	<b>36.8 rpm</b>
<b>Spin off speed</b>	<b>135 rpm</b>	<b>135 rpm</b>

## SR-65 EVO Hydraulic Rotary Rig

Safety equipment compulsory for EC marking  
On request whenever EC marking is not needed

- Foldable catwalks 600 mm (2 ft) wide
- Handrails for cabin level
- Acoustic alarm for rotation and translation
- Radio remote control for tramming on ramp
- Video-camera set with 4 cameras included
- Rearview mirrors
- Led lights
- Oil discharge conveying system
- Limit switch for main & service winch stroke
- Rotary cradle automatic lubricating system
- Main & service winch pull instant value displayed on DMS on board



# SR-65 EVO Hydraulic Rotary Rig

<b>CCS_Crowd Cylinder System</b>		
- Stroke	<b>6500 mm</b>	256 in
- Crowd force pull (down/up)	<b>140 / 280 kN</b>	31473 / 62945 lbf
- Speed up	<b>16,3 m/min</b>	53 ft/min
- Speed down (slow/fast)	<b>9,1 / 20,4 m/min</b>	30 / 67 ft/min
<b>WCS_Crowd Winch System</b>		
- Stroke	<b>16200 mm</b>	740 in
- Crowd force pull (down/up)	<b>330 / 330 kN</b>	74186 / 74186 lbf
- Speed up (slow/fast)	<b>15,5 / 34 m/min</b>	51 / 112 ft/min
- Speed down (slow/fast)	<b>15,5 / 34 m/min</b>	51 / 112 ft/min
<b>Engine</b>		
	<b>Cummins QSL 9</b>	Cummins QSL 9
- Power rating	<b>261 kW @ 2100 rpm</b>	350 HP @ 2100 rpm
- Max power available	<b>283 kW @ 1900 rpm</b>	379 HP @ 1900 rpm
- Engine conforms to Exhaust emission Standard	<b>EU Stage IV / US EPA Tier 4f</b>	EU Stage IV / US EPA Tier 4f
- Diesel tank capacity	<b>500 l</b>	132 US gal
<b>Noise</b>		
- Sound pressure level in cab	<b>76 dB(A)</b>	76 dB(A)
- Sound power level	<b>105 dB(A)</b>	105 dB(A)
<b>Main winch</b>		
	<b>control descent</b>	control descent
- Line pull (1st layer)	<b>220 kN</b>	48510 lbf
- Rope diameter	<b>26 mm</b>	1.02 in
- Line speed (max.)	<b>84 m/min</b>	275 ft/min
<b>Auxiliary winch</b>		
	<b>control descent</b>	control descent
- Line pull (1st layer)	<b>83 kN</b>	18301 lbf
- Rope diameter	<b>19 mm</b>	0.75 in
- Line speed (max.)	<b>84 m/min</b>	275 ft/min
<b>Hydraulic system</b>		
- Flow rates (main circuits)	<b>2x 294 l/min</b>	2x 78 US gal/min
- Third pump flow	<b>160 l/min</b>	42 US gal/min
- Hydraulic oil tank capacity	<b>600 l</b>	159 US gal
<b>Undercarriage</b>		
	<b>variable gauge, telescoping sides frames</b>	variable gauge, telescoping sides frames
- Overall width retracted / extended crawlers	<b>2980 / 4500 mm</b>	117 / 177 in
- Width of triple grouser track shoes	<b>700 mm</b>	28 in
- Overall length of crawlers	<b>5686 mm</b>	224 in
- Traction force	<b>395 kN</b>	88798 lbf
- Travel speed	<b>2,2 km/h</b>	1.4 mph
<b>Mast inclination (Backward/ Forward/Lateral)</b>		
	<b>10°/5°/5°</b>	10°/5°/5°

## STANDARD EQUIPMENT

- Rotary with variable drilling axis 780/1030 mm (30/40 in)
- Automatic control of rotary motors displacement
- Emergency mode of operation for engine
- Main and auxiliary winch controlled descent type with special grooving
- Hoist limit switch on main and service rope
- Swivel for main rope
- Service rope parking point
- GSM/GPRS/GPS modem kit
- DMS system electronic monitoring and visualization system
- Mast inclination measurement on X/Y axes
- Automatic vertical mast alignment
- Depth measuring device
- Rotary speed measuring device
- Variable gauge undercarriage
- Wider triple grouser track shoes
- Transport securing lugs on crawler units
- Oscillator attachment brackets
- Lower foldable mast element in CFA
- Cardan joint
- Flange for casing driving
- Kelly swivel
- Kelly guide
- On board lighting set
- On board tool set
- Electric refuelling pump
- High comfortable H-Cab 1050 mm (3.4 ft) wide
- Protective roof grate (FOPS compliant)
- Sliding door
- Adjustable console with sliding support for DMS 12" touch screen
- Engine and Diesel particulate diagnostic panel 3 color warning light
- Auto low idle system
- Ergonomic seat with air suspension, fully-adjustable positioning and lumbar support
- Heat and Air Conditioning control unit
- Courtesy lights in the cab
- Radio and CD player

## OPTIONAL EQUIPMENT

- Diesel Engine with EU Stage III A - US EPA Tier 3 motorization
- Additional Counterweight 1.1 ton
- Fiberglass canopies
- Automatic greasing kit
- Lubricator pump kit for rotary pads cradle
- Central lubrication system
- Flange for bucket opening
- Hydraulic prearrangement for casing oscillator
- Mast extension for special configuration
- Mast ladder kit
- Parachute safety kit
- Automatic hydraulic kit for upper mast folding
- Limit switch for rope winding and winches
- Free fall service winch
- Double roller auger cleaner
- Prearrangement for VTH-1
- Click-click system for soil discharge from tool
- Anti-slack system for main winch rope
- Autodrilling kit
- Removable counterweight
- Removable foot element kit
- Automatic raising mast (patented)
- Load cell on main winch
- Adaptation kit for SR75 kelly bar
- Variable drilling axis 780/1030 kit
- Automatic return to center hole kit
- PTO kit for washer pump
- Tool kit platform
- Sliding openable window



# SR-65 EVO Hydraulic Rotary Rig

## KELLY DRILLING SYSTEM



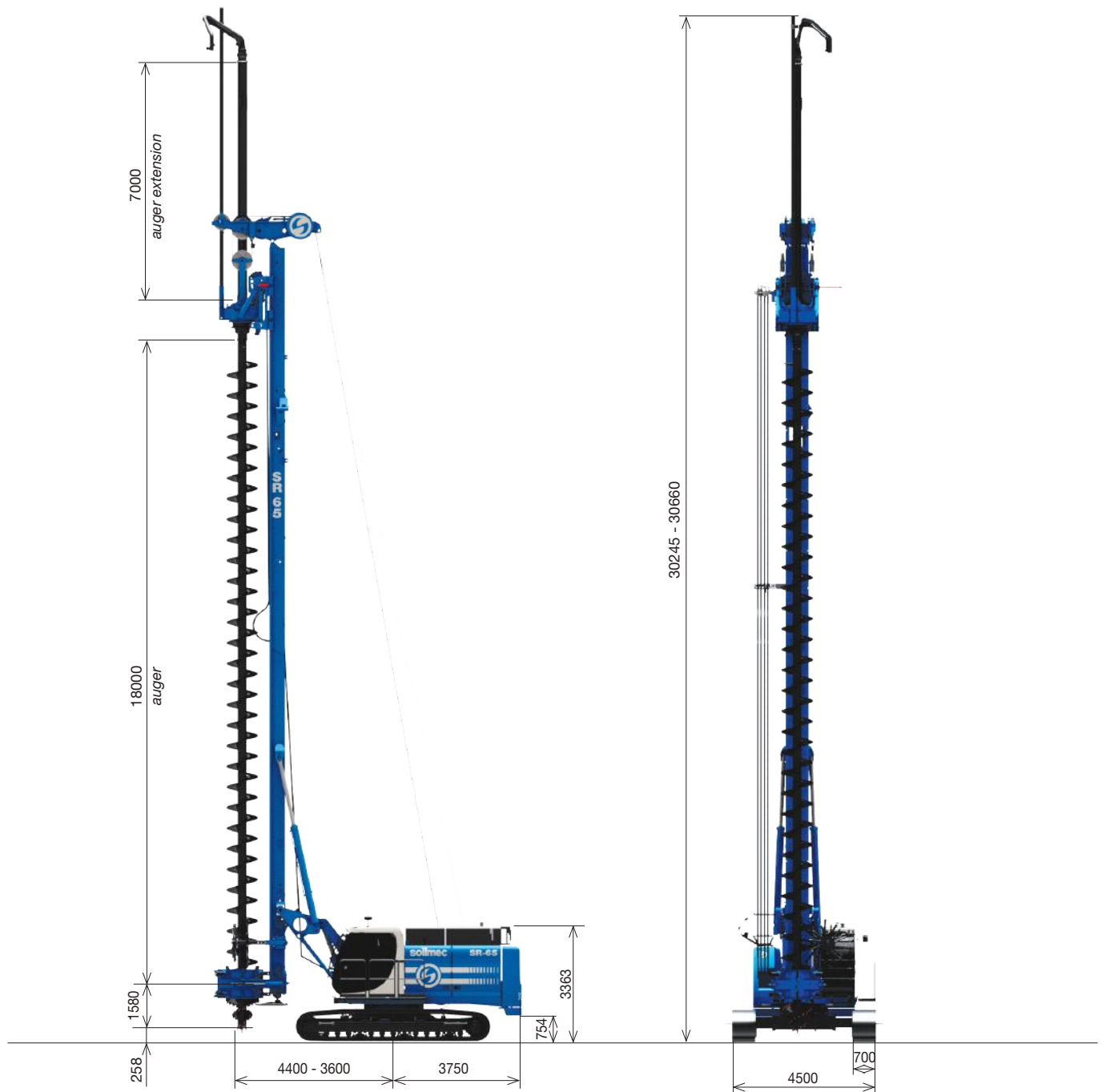
	Drilling Depths	Kelly dimensions	CCS Depth **		Weight		CCS SYSTEM				WCS SYSTEM	
			Depth **		ton ton (US)		H - low pos		H - high pos		H	
			m	ft	ton	ton (US)	m	ft	m	ft	m	ft
3 parts	BL HD	3 x 9	24,1	79.1	4,8	5.3	7,9	25.9	9,2	30.2	10,7	35.1
	BL HD	3 x 11,5	31,3	102.7	5,9	6.5	7,9	25.9	8,4	27.6	8,4	27.6
	BL HD	3 x 13,5	37,3	122.4	6,7	7.4	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	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	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	4.7	7,9	25.9	9,2	30.2	11,6	38.1
	BL HD	4 x 9	32,1	105.3	5,0	5.5	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	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	7,9	25.9	8,4	27.6	8,4	27.6
	BL HD	4 x 13,5	49,6	162.7	7,1	7.8	6,4	21.0	6,4	21.0	6,4	21.0
	BL HD	4 x 15,5	57,9	190.0	8,0	8.8	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	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	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	7,9	25.9	8,4	27.6	8,4	27.6
	FR HD	4 x 13,5	49,8	163.4	7,1	7.8	6,4	21.0	6,4	21.0	6,4	21.0
5 parts	FR HD*	5 x 10,5	46,4	152.2	6,1	6.7	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	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	7,9	25.9	7,9	25.9	7,9	25.9
	FR HD*	5 x 13,5	62,2	204.1	7,6	8.4	6,5	21.3	6,5	21.3	6,5	21.3
	FR HD*	5 x 14,5	66,2	217.2	8,0	8.8	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	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	3,4	11.2	3,4	11.2	3,4	11.2

\* rotary head derate

\*\* For CCS w/o mast lower element, depth reduced by -1300 mm / For WCS version depth reduced by -200 mm / For WCS w/o mast lower element, depth reduced by -1600 mm / For Kelly c/w stub 200x200, depth reduced by -200mm

# SR-65 EVO Hydraulic Rotary Rig

## CFA APPLICATIONS 4° line pull



### CFA - Continuous Flight Auger - Quick conversion kit

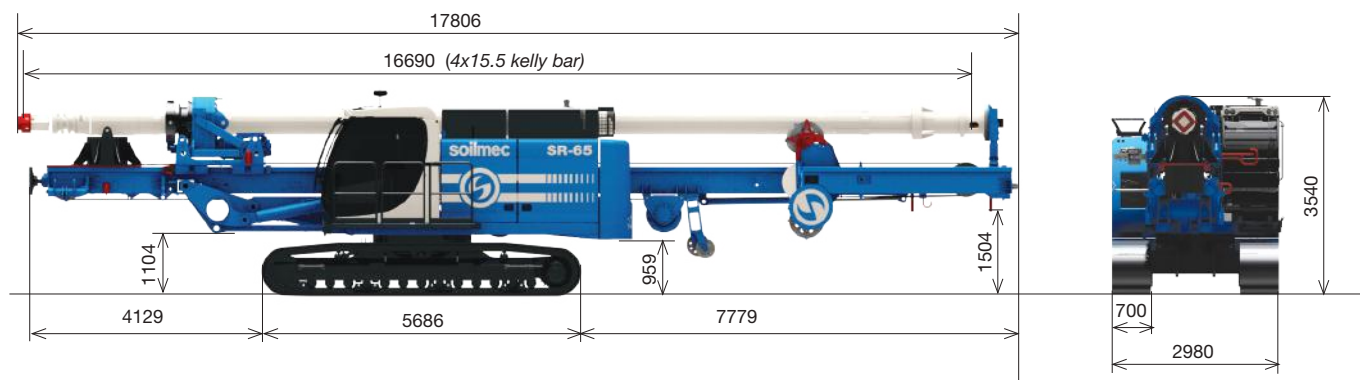
Operating weight (c/w auger ext, w/o auger)	60500 kg	133378 lb
Max pile diameter	1200 mm	47.24 in
Max pile depth with 7 m auger extension	22,5 m	74 ft
Max pile depth with rotating auger cleaner, with 7 m auger extension	21,2 m	70 ft
Extraction force	550 kN	123643 lbf
Crowd force on auger	330 kN	74186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

### CFA - Continuous Flight Auger - 4° line pull

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

# SR-65 EVO Hydraulic Rotary Rig

## TRANSPORT, DIMENSIONS AND WEIGHTS



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

Transport configuration		
Transport width	2980 mm	117.32 in
Transport length	17600 mm	692.91 in
Transport height	3540 mm	139.37 in
Transport weight c/w kelly bar 4x13,5 (CCS - WCS)	63600 / 65800 kg	140213 / 145063 lb
Min transport weight (CCS - WCS) *	48450 / 49850 kg	106813 / 109899 lb
CFA transport weight (Quick conversion - 4°line pull)	57600 / 58300 kg	126985 / 128528 lb

\* CCS: w/o kelly bar and counterweight

WCS: w/o kelly bar, counterweight, cardan joint, rotary flange, foot pad

Technical data sheet SR65- 001- 3/2018

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