



B2



soilmec SR-30 Eagle



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SR-30 Eagle

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Drilling and Foundation Equipment

SR-30 Eagle

Agile and powerful

The SR-30 Eagle is the smallest model in Soilmec's line-up of drilling rigs. Built with a lightweight design the rig features a high torque rotary head, powerful Diesel engine and the new segmental mast.

The SR-30 Eagle is a modern machine equipped with several accessories, devices and the DMS 4.0 system to ensure the highest level of connectivity, accessibility, and safety.



Higher performance

- Automatic control of rotary motors
- 131 kNm (96619 lbf) Rotary head
- 149 kW (200 HP) Diesel engine



More efficient

- Optimized lines to the rotary for cutting power loss
- Diesel engine – Auto low idle control for fuel saving
- Electric system 2.0 and over dimensioned hydraulic plant to cut pressure losses



Safety first

- Cab platform access with handrails
- 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 technology (patent pending)



Environment-friendly

- Complies with the most stringent emission rules
- Noise reduction



Proven comfort & visibility

Fully adjustable pneumatic suspension seat, joysticks and keyboards easy to use, powerful HVAC system with recirculating air, USB port

Wide roof and front glass with protection grids, LED lights and CCTV camera system with dedicated 7" display



Always connected!

DMS On Board 4.0

DMS PC for a complete production analysis

DMS Manager a cloud service for superior fleet supervision

SOILMEC
CRAWLER
LOADERS

SR-30 Eagle

One Eagle Two choices

Standard version

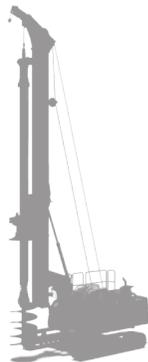
Below 30 t (66,000 lb)

Only Monolithic mast

Kelly

Segmental casing

Standard CFA 4-lines pull



Upgraded version

Over 30 t (66,000 lb)

Both Monolithic
or Segmental masts

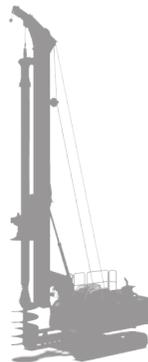
Kelly

Segmental casing

Standard CFA 4-lines pull

Extended CFA 4-lines pull

LHR



SR-30 Eagle

When less is more

Less than 30 tons
with 4x9 kelly bar

Less than 30 minutes
from truck to piling





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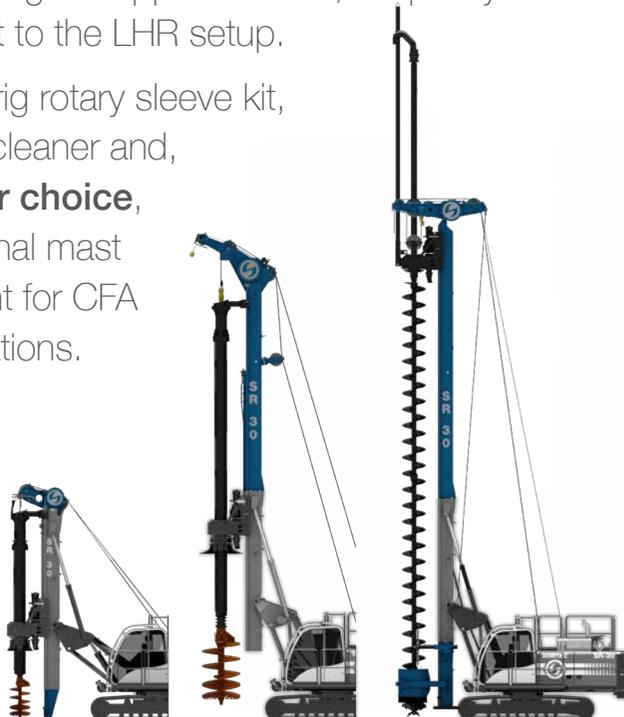
SR-30 Eagle

Latest generation SM segmental mast

The segmental mast allows for quick conversion of the rig for different applications.

Removing the upper element, to quickly convert to the LHR setup.

Add a rig rotary sleeve kit, auger cleaner and, **at your choice**, additional mast element for CFA applications.



Upgraded
version

Key
features

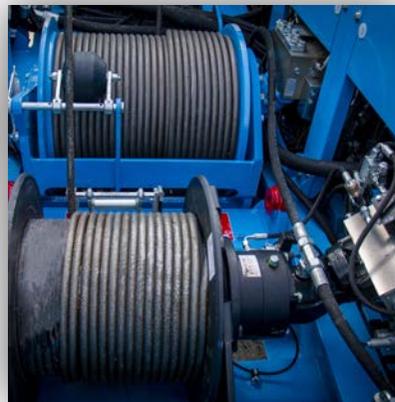




SR-30 Eagle

The answer to all your job site needs

- **Main winch rope anti-slack (Patent pending).** 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 (Patented).** 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
- **Easy maintenance,** automatic lubrication of all the necessary greasing points in kelly and CFA versions



DRILLING

Large Diameter Piles

Cylinder Crowd System
Standard version



LDP - Large Diameter Piles - CCS version	Standard	Standard
Operating weight w/o kelly bar ¹	26010 kg	57342 lb
Max pile diameter (tool in front of the mast)	1500 mm	59.1 in
Max pile diameter (tool below the mast)	3000 mm	118.1 in
Working radius	2900 - 3400 mm	114.2 - 133.9 in
Tail swing radius	3335 mm	131.3 in
Max pile depth-friction kelly ⁵	40,2 m	131.9 ft
Max pile depth-locking kelly ²	32,4 m	106.3 ft

Transport configuration - CCS version	Standard	Standard
Transport weight c/w kelly bar 4x9 ¹	29600 kg	65256 lb
Transport length	13195 mm	43,3 ft
Transport width ³	2550 mm	8,4 ft
Transport height ⁴	3235 mm	10,6 ft

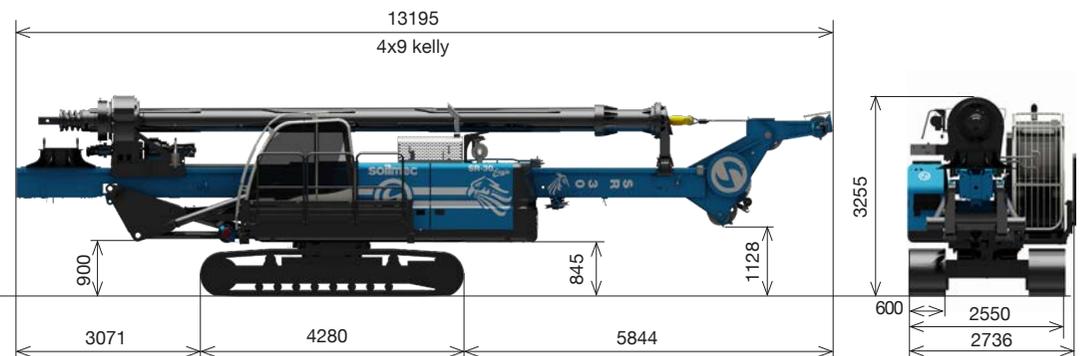
¹ Stg V version EU stage II version 300 kg (661 lb) less.

² Also 4x10,5 mechanical locking kelly bar is available. Not self-mounting. Max depth 37,7 m (123.7 ft)

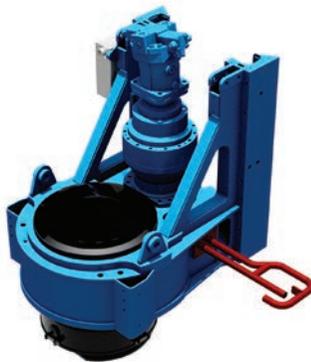
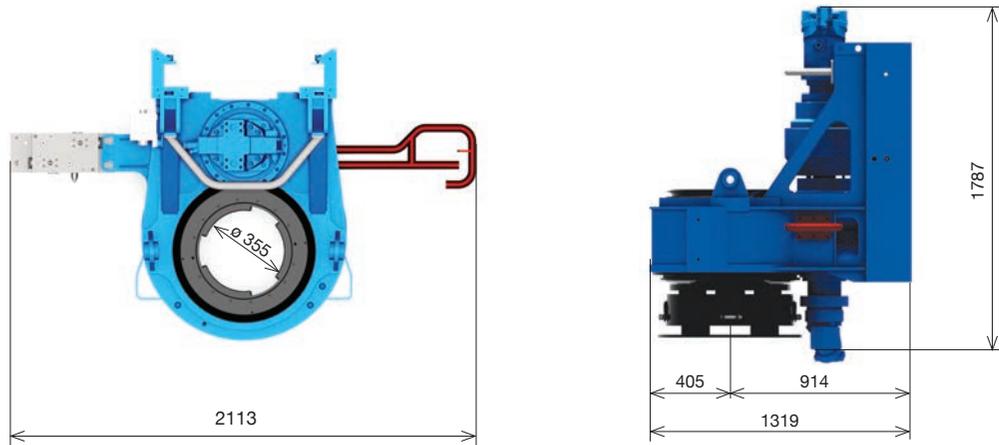
³ With foldable catwalk the width is 186 mm (7.3 in) more

⁴ c/w turret handrails become 3255 mm (10.7 ft)

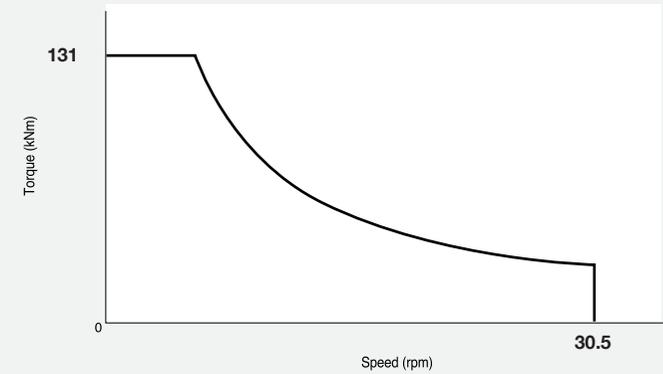
⁵ Also 5x10.5 friction kelly bar is available. Not self-mounting. Max depth 47.5 m (155.8 ft)



Rotary



Rotary torque diagram



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.

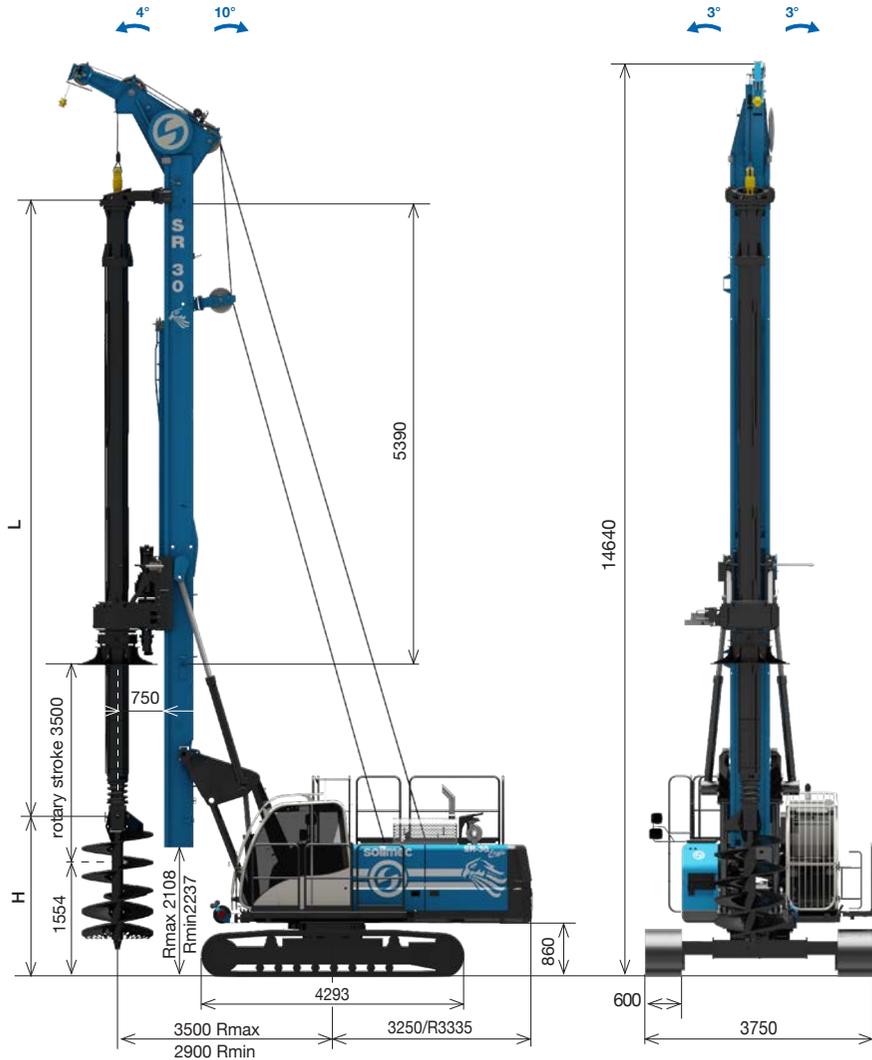
Kelly bars for rotary OD 355 mm / 14 in.

Optional kit for adapting rotary to OD 324mm / 12.8 in is available (torque derating is necessary).

Rotary drive	Spin off type	Spin off type
Max torque	131 kNm	96619 lb ^f ·ft
Rated torque	114 kNm	84228 lb ^f ·ft
Max drilling speed	30,5 rpm	30.5 rpm
Spin-off speed	98 rpm	98 rpm
Rotary Weight (w/o cardan joint & flange)	2345 kg	5170 lb

Large Diameter Piles

Cylinder Crowd System
Upgraded version

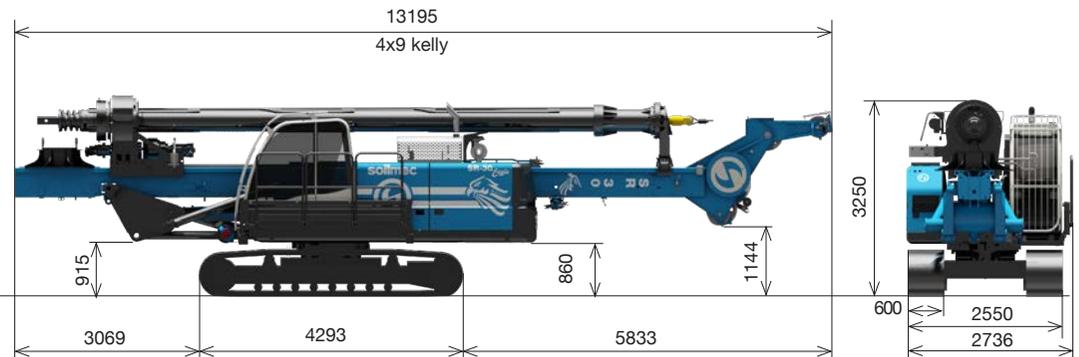


LDP - Large Diameter Piles - CCS version	Upgraded	Upgraded
Operating weight w/o kelly bar ¹	27710 kg	61089 lb
Max pile diameter (tool in front of the mast)	1500 mm	59.1 in
Max pile diameter (tool below the mast)	3000 mm	118.1 in
Working radius	2900 - 3500 mm	114.2 - 137.8 in
Tail swing radius	3335 mm	131.3 in
Max pile depth-friction kelly ⁵	40.2 m	131.9 ft
Max pile depth-locking kelly ²	32.4 m	106.3 ft

Transport configuration - CCS version	Upgraded	Upgraded
Transport weight c/w kelly bar 4x9 ¹	31300 kg	69004 lb
Transport length	13195 mm	43.3 ft
Transport width ³	2550 mm	8.4 ft
Transport height ⁴	3270 mm	10.7 ft

- ¹ Stg V version. EU stage II version 300 kg (661 lb) less.
- ² Also 4x10,5 mechanical locking kelly bar is available. Not self-mounting. Max depth 37,7 m (123.7 ft)
- ³ With foldable catwalk the width is 186 mm (7.3 in) more
- ⁴ c/w turret handrails. w/o removable handrails height become 3250 mm (10.7 ft)
- ⁵ Also 5x10.5 friction kelly bar is available. Not self-mounting. Max depth 47.5m (155.8 ft)

All weights are considered in Segmental Mast version. Monolithic mast version weight 350 kg (772 lb) less



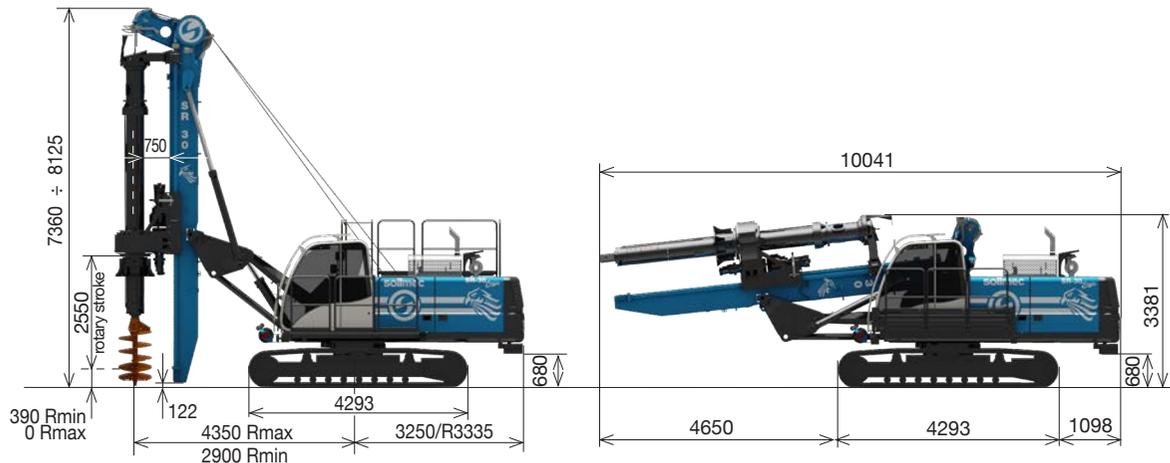
Low Head Room Upgraded version

LDP - Large Diameter Piles - LHR version	Upgraded	Upgraded
Operating weight w/o kelly bar ¹	27210 kg	59987 lb
Max pile diameter (tool in front of the mast)	1500 mm	59.1 in
Working radius	2900 - 4350 mm	114.2 - 171.3 in
Tail swing radius	3335 mm	131.3 in
Max pile depth-friction kelly	16.2 m	53.1 ft
Max pile depth-locking kelly	13.2 m	43.3 ft
Operating height Rmax - Rmin	7.4 - 8.2 m	24.3 - 26.9 ft
CCS Stroke	2550 mm	100.4 in
Pull up force	124 kN	27876 lbf
Pull down force	85 kN	19108 lbf
Main winch line pull (1 st layer)	102 kN	22930 lbf

Transport configuration - LHR version	Upgraded	Upgraded
Transport weight c/w kelly bar 4x4 ¹	29400 kg	64815 lb
Transport length	10041 mm	32.9 ft
Transport width ²	2736 mm	9.0 ft
Transport height	3381 mm	11.1 ft

¹ Stg V version. EU stage II version 300 kg (661 lb) less.

² With foldable catwalk the width is 186 mm (7.3 in) more



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

Kelly bars for LDP

	Kelly type	Kelly dimens.	Drilling Depth ¹		Weight		L Length		Clearance	
			m	ft	ton	US ton	m	ft	m	ft
3 parts	BL HD	3 x 7,5	19,5	64.0	2,9	3.2	8,5	27.9	4,1	13.5
	BL HD	3 x 9	24,3	79.7	3,4	3.7	10,2	33.5	2,4	7.9
	BL HD ¹⁻⁵	3 x 10,5	28,0	93.5	3,8	4.2	11,5	37.7	1,1	3.6
4 parts	BL HD ²	4 x 7,5	25,7	84.3	2,9	3.2	8,4	27.6	4,3	14.1
	BL HD ²	4 x 9	32,4	106.3	3,4	3.7	10,0	32.8	2,6	8.5
	BL HD ¹⁻²⁻⁵	4 x 10,5	37,7	123.7	3,9	4.3	11,5	37.7	1,1	3.6
5 parts	FR HD ³⁻⁴	5 x 7,5	32,3	106.0	3,5	3.9	8,4	27.6	4,3	14.1
	FR HD ³⁻⁴	5 x 8,5	38,7	127.0	3,9	4.3	9,6	31.5	3,0	9.8
	FR HD ³⁻⁴	5 x 9	40,2	131.9	4,1	4.5	10,0	32.8	2,6	8.5
	FR HD ³⁻⁴⁻⁵	5 x 9,5	42,5	139.4	4,3	4.7	10,4	34.1	2,3	7.5
	FR HD ³⁻⁴⁻⁵	5 x 10	45,5	149.3	4,4	4.9	11,0	36.1	1,6	5.2
	FR HD ¹⁻³⁻⁴⁻⁵	5 x 10,5	47,5	155.8	4,6	5.1	11,5	37.7	1,2	3.9

Kelly bar for LHR

Kelly type	Kelly dimens.	Drilling Depth ¹		Weight		L Length		Clearance	
		m	ft	ton	US ton	m	ft	m	ft
BL HD ¹	4 x 4	13,3	43.6	1,9	2.0	4,5	14.9	1,2	3.9
FR HD ¹	5 x 4	16,2	53.1	2,2	2.5	4,5	14.9	1,2	3.9

Note:

Drilling depth is calculated with kelly bar c/w stub 130x130 and drilling tool 1500 mm (4.9 ft) long, all kelly bar have 355 mm (14 in) diameter.

Kelly bars are also available with 324 mm (13 in) diameter (dedicated kit and torque derated needed).

Kelly bars are also available with stub 150x150 and 200x200. Using 200x200 stub; depth +0.2m (0.66ft), L +0.23m (+0.75ft) Clearance -0.2m (-0.66ft)

¹ Drilling depth is calculated with drilling tool 1000 mm (3.3 ft) long

² Friction type is also available with the same dimension

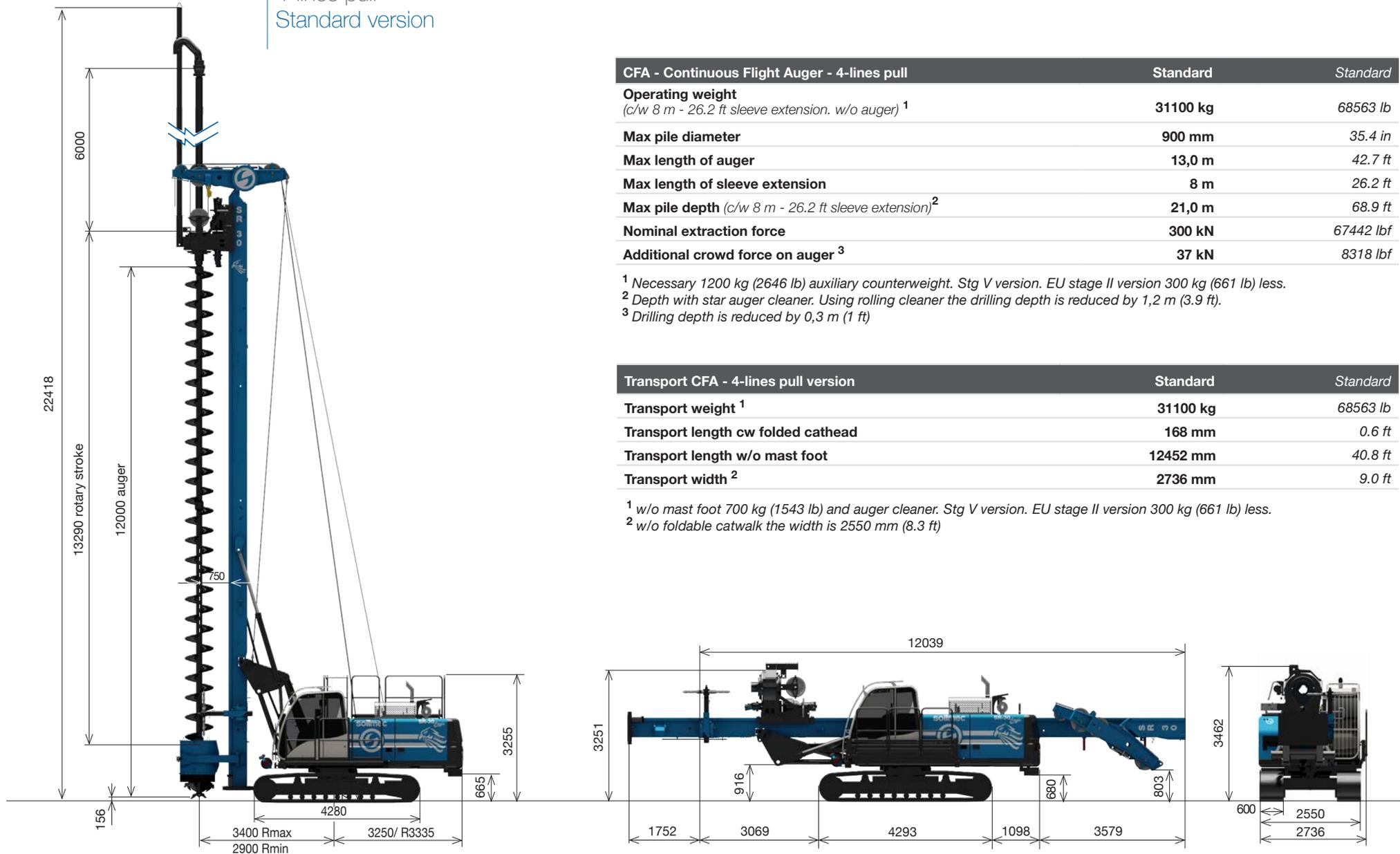
³ Mixed type (3 elements mechanical locking and 2 elements friction) is also available with the same dimension

⁴ Rotary torque derated

⁵ Not self mounting kelly bar

CFA

4-lines pull
Standard version



CFA - Continuous Flight Auger - 4-lines pull	Standard	Standard
Operating weight (c/w 8 m - 26.2 ft sleeve extension. w/o auger) ¹	31100 kg	68563 lb
Max pile diameter	900 mm	35.4 in
Max length of auger	13,0 m	42.7 ft
Max length of sleeve extension	8 m	26.2 ft
Max pile depth (c/w 8 m - 26.2 ft sleeve extension) ²	21,0 m	68.9 ft
Nominal extraction force	300 kN	67442 lbf
Additional crowd force on auger ³	37 kN	8318 lbf

¹ Necessary 1200 kg (2646 lb) auxiliary counterweight. Stg V version. EU stage II version 300 kg (661 lb) less.

² Depth with star auger cleaner. Using rolling cleaner the drilling depth is reduced by 1,2 m (3.9 ft).

³ Drilling depth is reduced by 0,3 m (1 ft)

Transport CFA - 4-lines pull version	Standard	Standard
Transport weight ¹	31100 kg	68563 lb
Transport length cw folded cathead	168 mm	0.6 ft
Transport length w/o mast foot	12452 mm	40.8 ft
Transport width ²	2736 mm	9.0 ft

¹ w/o mast foot 700 kg (1543 lb) and auger cleaner. Stg V version. EU stage II version 300 kg (661 lb) less.

² w/o foldable catwalk the width is 2550 mm (8.3 ft)

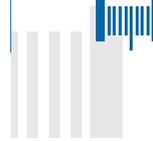
Technical data

Undercarriage



Undercarriage		
Type	variable gauge, telescoping sides frames	variable gauge, telescoping sides frames
Overall width with retracted crawlers	2550 mm	100.4 in
Overall width with extended crawlers	3750 mm	147.6 in
Width of triple grouser track shoes	600 mm	23.6 in
Overall length of crawlers	4293 mm	169 in
Traction force	205 kN	46085 lbf
Travelling speed	1,6 / 2,7 km/h	1 / 1.7 mph

Winch



Main winch		
Type	controlled descent	controlled descent
Modello	SW100	SW100
Rope layers	2	2
Line pull (1 st layer)	102 kN	22930 lbf
Rope diameter	20 mm	0.8 in
Rope speed (1 st layer)	72 m/min	236 ft/min

Auxiliary winch		
Type	controlled descent	controlled descent
Rope layers	2	2
Line pull (1 st layer)	53 kN	11915 lbf
Rope diameter	16 mm	0.63 in
Rope speed (1 st layer)	58 m/min	190 ft/min



Noise emission		
Sound pressure level in cabin - Stage V	80 dB	80 dB
Guaranteed sound power level (2000/14/EC Directive)	109 dB	109 dB

Engine



Engine		
Engine model ¹	Cummins B 4.5	Cummins B 4.5
Power rating	149 kW @ 2200 rpm	200 HP @ 2200 rpm
Engine conforms to Exhaust emission Standard	EU stage V US EPA Tier 4f	EU stage V US EPA Tier 4f
Fuel tank capacity	350 l	92 US gal
AD Blue tank capacity	56,8 l	15 US gal

¹ Cummins QSB 4.5 - EU stage II 149 kW (200 HP)

Hydraulic system



Hydraulic system		
Main pumps flow	2x 121 l/min	2x 32 US gal/min
Third pump flow	59 + 37 l/min	16 + 10 US gal/min
Hydraulic oil tank capacity	250 l	66 US gal

Crowd system



CCS_Cylinder Crowd System		
Stroke	3500 mm	137.8 in
Pull up crowd force	124 kN	27876 lbf
Pull down crowd force	85 kN	19108 lbf
Speed up (slow / fast)	12 m/min	39 ft/min
Speed down (slow / fast)	9,3 m/min	31 ft/min

Configurations

UNDERCARRIAGE	
Variable gauge, telescopic side frames	●
Machine anchor points for transport	●
Radio remote control for tramming operation	●
UPPER STRUCTURE	
Diesel engine Cummins B 4.5 EU Stage V – US EPA Tier 4F	●
Diesel engine Cummins QSB 4.5 - EU stage II	○
Start and slow system	●
Harness technology for electrical system	●
Automatic Greasing package	○
PTO kit for washing lancer	○
Washing pump kit	○
Prearrangement for air compressor kit	○
Catwalks for centre of turret	●
Rear ladder for torret access	●
Foildable side catwalks for cabin	○
Machine lifting kit (harbor use)	○
Acoustic & light alarm for tramming	●
Lighting led system package	○
Sound proofed canopies	●
CAB	
Front protective grille	●
Falling object protective structure (FOPS)	●
Rearview mirrors	●
Comfort packakge (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	●
Transport kit for disassembled catwalk	○
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 SW100 model	●
Load cell for main winch	○
Limit switch for rope winding and winches	●
Depthmeter for main winch	●
Anti-slack system for main winch	○
Service winch SW56 model	●
Load cell for service winch	●
ROTARY UNIT	
RD130 model Max torque intermitted: 131 kNm (96619 lbf)	●
Interchangeable rotary sleeve	●
Quick disassembling rotary kit	○
Automatic greasing kit for cradle	○
Automatic control of motor displacement	●
MAST	
Modular main mast	●
Mast guide cleaner	●
Monolithic mast	○
Kit for assisted rasing mast	○
Lower removable mast element	●
Manual upper mast folding (for CFA)	○
Hydraulic cathead folding kit	○
Cathead greasing kit	○
KELLY BAR TECHNOLOGY	
Rotary sleeve with 3 ribs OD 355 mm (14 in)	●
Rotary sleeve with 3ribs OD 324 mm (12.8 in)	○
Spin off discharging system	●
Cardan joint	●
Flange for casing driving d.1300 (d.51.1 in)	●
Flange for casing driving d.1500 (d.59 in)	○

Automatic return to the centre hole	○
Kelly bar guide	●
CFA TECHNOLOGY	
Hydraulic prearrangement for CFA 4- lines pull	○
HD-4 or HD-5 sleeve 3 m (118 in) long	○
HD-4 or HD-5 sleeve 6 m (236 in) long	●
HD-4 or HD-5 sleeve 8 m (315 in) long	○
DMS ON BOARD with automatic auger lifting	○
Autodrilling package	○
Autorotary package	○
Additional pull-down winch 37 kN (8318 lbf)	○
Openable lower guide d.900 mm (35.4 in)	○
Auger cleaner star type	○
Double roller auger cleaner for d.900 mm (35.4 in) auger	○
Two pressure transducers kit	○
Hydraulic prearrangement for VTH-1 vibrator	○
Automatic greasing package for CFA cathead	○
Package for CFA 4-lines pull 13m (42.7 ft) upper mast extension	●
Package for CFA 4-lines pull 14m (45.9 ft) upper mast extension for extended version	○
Aux counterweight 1200 kg (2646 lb) for CFA	●
Warning system for CFA sleeve extension coupling (patent pending)	●
4 in swivel and bent curve	○
5 in swivel and bent curve	●
WiFi pressure trasducer	○
Drilling energy measurement kit for displacement/CFA	●
Automatic greasing kit for concrete swivel	○

● standard

○ optional



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