

SR-105

BLUE TECH ©



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Drilling and Foundation Equipment

What Drillers Want!

Designed around a new energy-saving architecture, the next generation SR-105 Blue Tech is a rig that meets the demands of productivity, flexibility and functionality across all drilling setups and technologies.



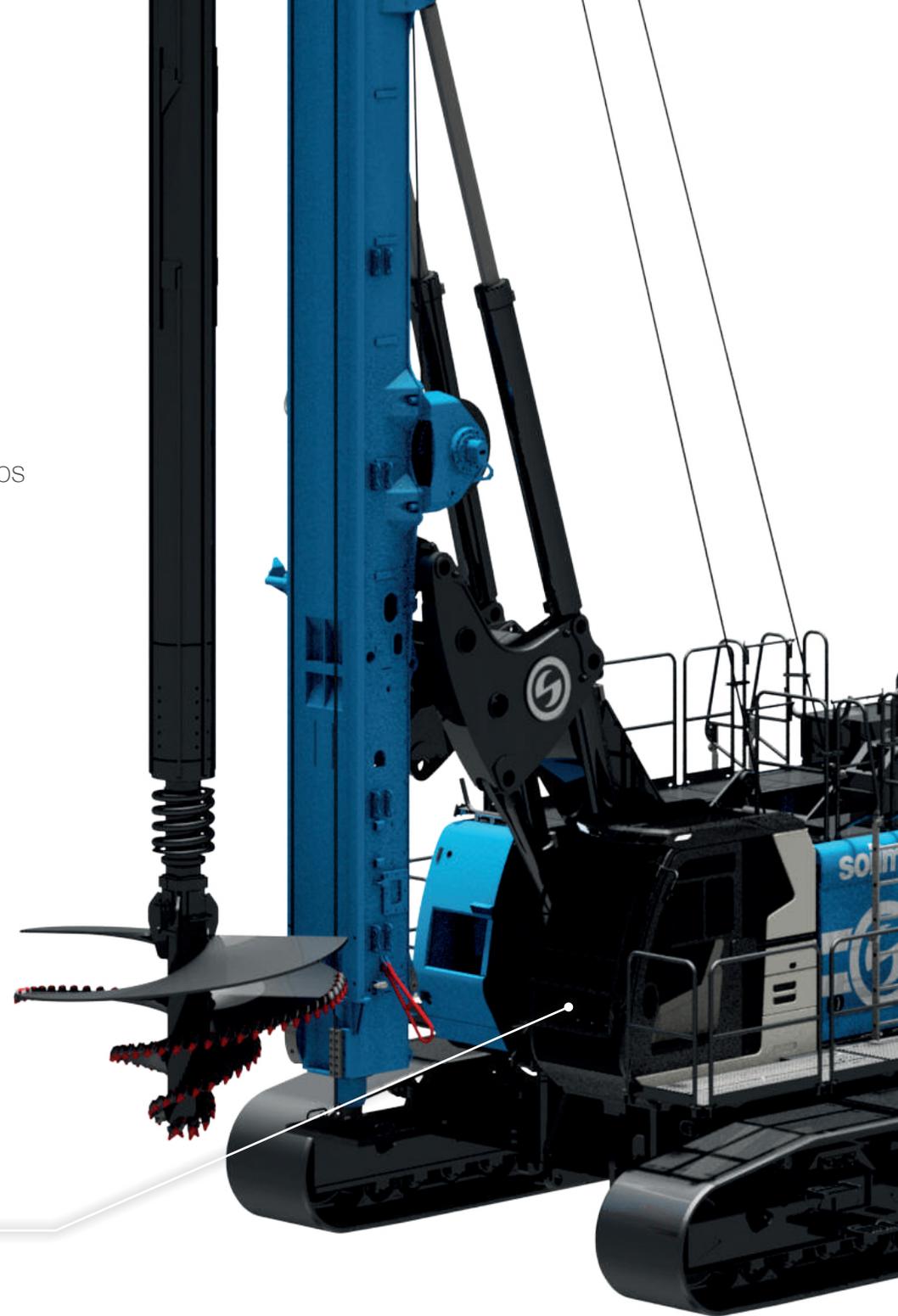
Higher performance

- Automatic control of rotary motors
- Increased extraction force
- + 14% rated torque available
- More power on tool



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
- Closed circuit on main winch





Truly multipurpose

- 5 technologies: LDP, CFA, DP/TCT, TJ and CAP/CSP/VDW
- Many versions: WCS, CCS, Quick Change, 4-lines pull, the latest ETCW Direct pull and the extended versions.



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



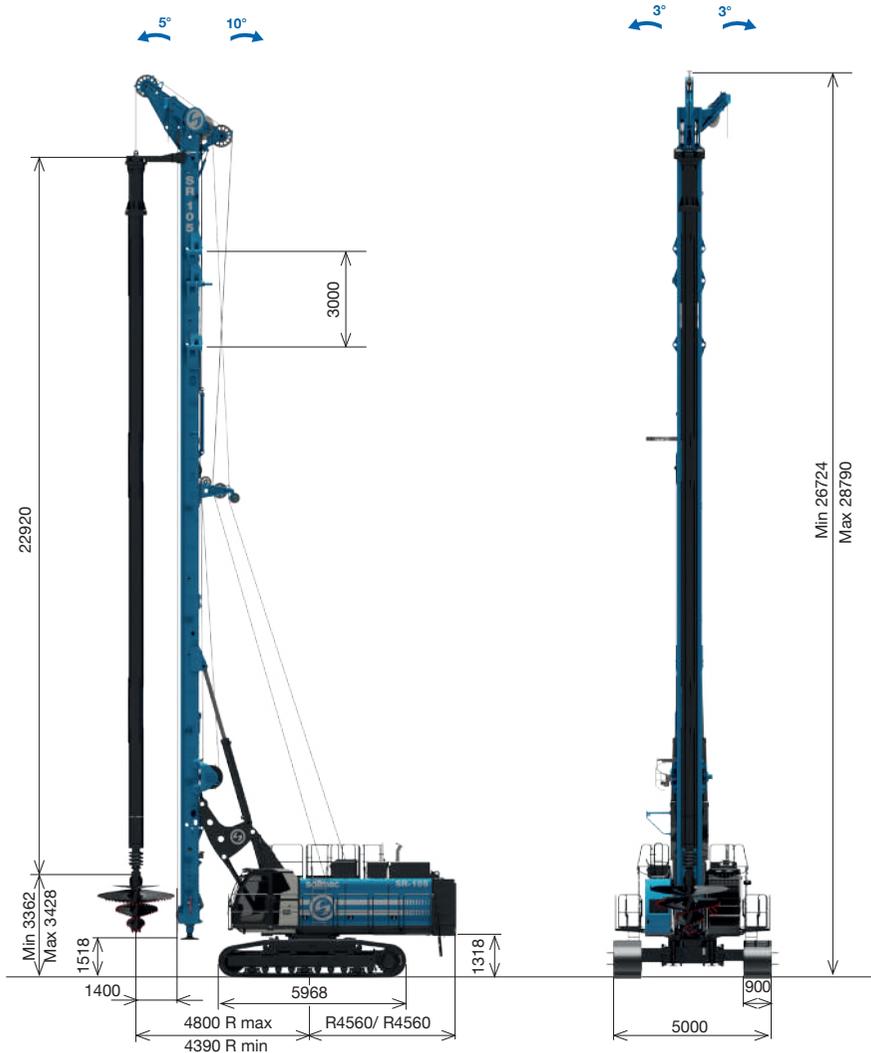
Always connected!

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



Technologies

Extended mast



LDP - Large Diameter Piles	CCS version		WCS version	
Operating weight w/o kelly bar	97240 kg	214377 lb	99340 kg	219007 lb
Max pile diameter (tool in front of the mast) ¹	2100 / 2700 mm	83 / 106 in	1900 / 2500 mm	75 / 98 in
Max pile diameter (tool below the mast) ¹	3000 / 3600 mm	118 / 142 in	3000 / 3600 mm	118 / 142 in
Working radius ²	4090 / 4800 mm	161 / 189 in	4090 / 4800 mm	161 / 189 in
Tail swing radius	4560 mm	180 in	4560 mm	180 in
Max pile depth-friction kelly ³	89 / 101,7 m	292 / 334 ft	89 / 101,7 m	292 / 334 ft
Max pile depth-locking kelly ³	70 / 81,4 m	230 / 267 ft	70 / 81,4 m	230 / 267 ft

¹ Increased drilling axis kit from 1100 mm (43 in) to 1400 mm (55 in); ² 4390 / 4800 mm (173 / 189 in) with drilling axis 1400 mm (55 in)
³ standard / with 3 m (10 ft) special mast extension kit, weight increased by 2400 kg (5291 lb)

CFA - Continuous Flight Auger	Quick change		ECTW - Direct quick change	
Operating weight (c/w auger ext, w/o auger)	102700 kg	226412 lb	102500 kg	225972 lb
Max pile diameter	1200 mm	47 in	1200 mm	47 in
Max length of auger ²	20 / 23 m	66 / 75 ft	20 / 23 m	66 / 75 ft
Max length of sleeve extension	8,5 m	28 ft	8,5 m	28 ft
Max pile depth ¹⁻²	26,5 / 29,5 m	87 / 97 ft	26,5 / 29,5 m	87 / 97 ft
Extraction force	1000 kN	224805 lbf	484 kN	108806 lbf
Extraction force on auger	484 kN	108806 lbf	484 kN	108806 lbf

¹ c/w max sleeve extension; depth reduced of 1,5 m (5 ft) with roller auger cleaner
² standard / with 3 m (10 ft) special mast extension kit, weight increased by 2400 kg (5291 lb)

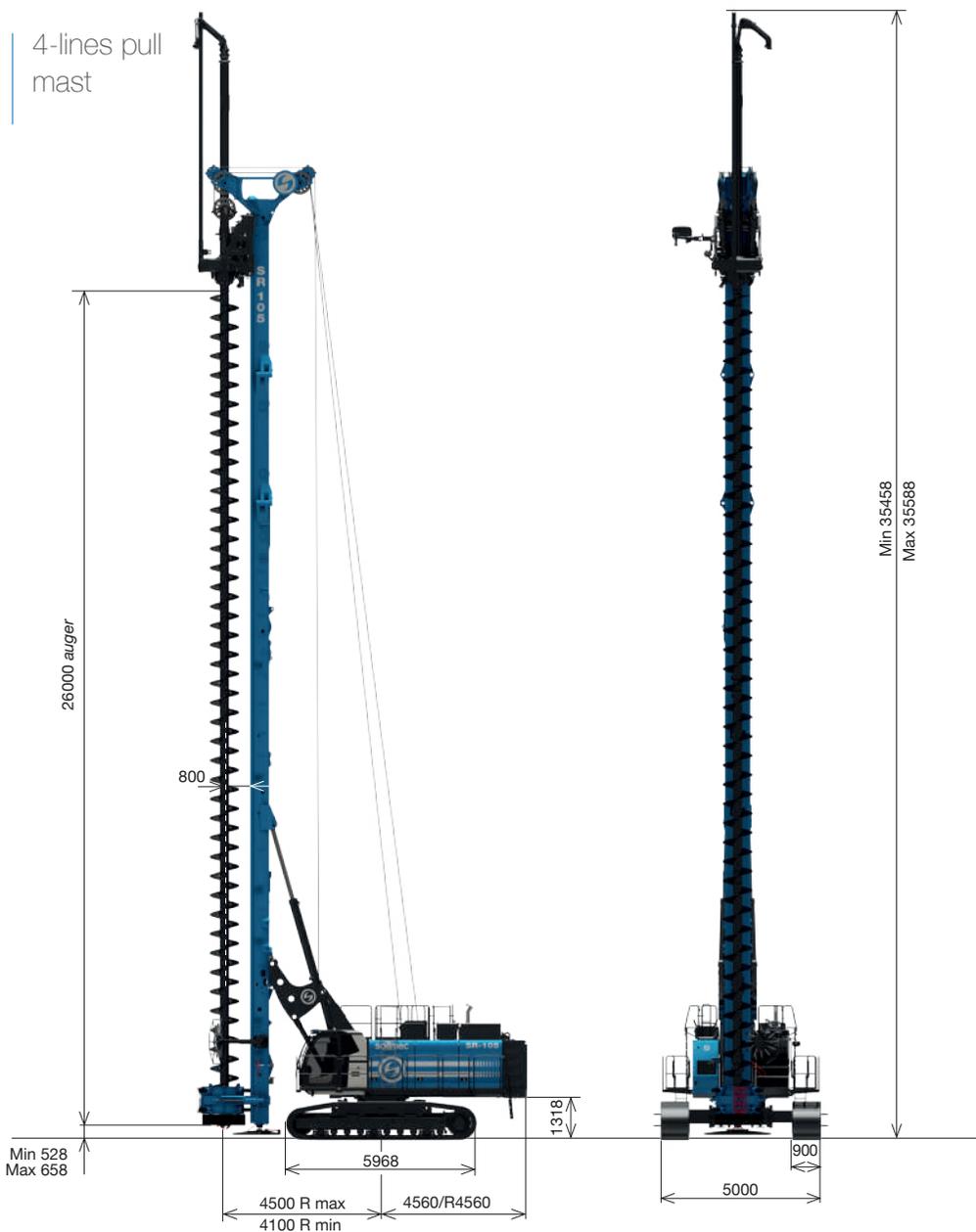
ECTC - Quick change	DP - Displacement Pile		TJ - Turbojet®	
Max DP/TCT pile diameter	600 / 800 mm	24 / 31 in	1900 mm	74.8 in
Max length of string ¹	20 / 23 m	66 / 75 ft	20 / 23 m	66 / 75 ft
Max length of string extension ²	8,5 / 16 m	28 / 52 ft	6 / 16 m	20 / 52 ft
Max pile depth ¹	25,5 / 28,5 m	84 / 94 ft	23 / 26 m	75 / 85 ft
Mast lattice boom extension length	8,4 / 15,8 m	28 / 52 ft	8,4 / 15,8 m	28 / 52 ft
Max depth c/w lattice boom mast ext. ³	25,5 / 33 m	84 / 108 ft	25,5 / 33 m	84 / 108 ft

¹ standard / with 3 m (10 ft) special mast extension kit, weight increased by 2400 kg (5291 lb); ² without / with mast lattice boom extension
³ 3 m (10 ft) special mast extension kit not admitted

ECTC - Quick change VDW	CAP / CSP - Displacement Pile	
Operating weight (w/o casing, w/o auger)	101400 kg	223546 lb
Max pile diameter	800 mm	31.5 in
Max augered depth ¹	18 / 21 m	59 / 69 ft
Max cased depth ¹	17,8 / 20,8 m	58 / 68 ft
Casing max torque	203 kNm	149723 lbf*ft
Max casing speed of rotation	18 rpm	18 rpm
Auger max torque	101 kNm	74788 lbf*ft
Max auger speed of rotation	37,9 rpm	37.9 rpm
VDW pull up/down	850 / 484 kN	191084 / 108806 lbf
Stroke between casing & auger	500 mm	20 in

¹ standard / with 3 m (10 ft) special mast extension kit, weight increased by 2400 kg (5291 lb)

Technologies



4°Lines pull	CFA - Continuous Flight Auger	
Operating weight (c/w auger ext, w/o auger)	102300 kg	225531 lb
Max pile diameter	1200 mm	47 in
Max length of auger ²	24 / 28 m	79 / 92 ft
Max length of sleeve extension	8,5 m	28 ft
Max pile depth ¹⁻²	32,5 / 36,5 m	107 / 120 ft
Extraction force	1110 kN	249534 lbf
Extraction force on auger	100 / 484 kN	22481 / 108806 lbf

¹ c/w max sleeve extension; depth reduced of 1,6 m (5 ft) with roller auger cleaner

² standard / with 5 m (16 ft) special mast extension kit, weight increased by 4700 kg (10362 lb)

4°Lines pull	CAP / CSP - Cased Auger & Secant Piles	
Operating weight (w/o casing, w/o auger)	117100 kg	258159 lb
Max pile diameter	1000 mm	39 in
Max augered depth	26,3 m	86 ft
Max cased depth	19,7 m	65 ft
Casing max torque	334 kNm	246345 lbf·ft
Max casing speed of rotation	5 rpm	5 rpm
Auger max torque ¹	250 kNm	184387 lbf·ft
Max auger speed of rotation	26,3 rpm	26.3 rpm
Casing pull up/down ²	484 / 484 + 332 kN	108806 / 108806 + 74635 lbf
Auger pull up/down ²	1110 / 332 kN	249534 / 74635 lbf

¹ up to 342 kNm (252242 lbf·ft); ² 332 kN (7463 lbf) optional winch

Technical data

Rotary drive



Rotary drive		
Type	Spin off type	Spin off type
Max torque (intermittent)	362,4 kNm	267288 lbf·ft
Rated torque	342 kNm	252242 lbf·ft
Drilling speed	26,3 rpm	26,3 rpm
Spin off speed	120 rpm	120 rpm

Undercarriage



Undercarriage		
Type	variable gauge, telescoping removable sides	variable gauge, telescoping removable sides
Overall width with retracted/extended crawlers	3400 / 5000 mm	134 / 197 in
Width of triple grouser track shoes	900 mm	35.4 in
Overall length of crawlers	5969 mm	235 in
Traction force	771 kN	173325 lbf
Travelling speed	1,9 km/h	1.2 mph

Engine



Engine		
Engine model ¹	Cummins X15	Cummins X15
Power rating	455 kW @ 1900 rpm	610 HP @ 1900 rpm
Engine conforms to Exhaust emission Standard	EU stage V, US EPA Tier 4f	EU stage V, US EPA Tier 4f
Fuel tank capacity	870 l	230 US gal
AD Blue tank capacity	57 l	15 US gal

¹ CAT C15 - Tier3 is available on request

Crowd system



CCS_Cylinder Crowd System		
Stroke	6500 mm	256 in
Crowd force pull (down/up)	280 / 365 kN	62945 / 82054 lbf
Speed up	10,8 m/min	35 ft/min
Speed down	11 m/min	36 ft/min

WCS_Winch Crowd System		
Stroke ¹	18100 mm	713 in
Crowd force pull (down/up)	484 / 484 kN	108806 / 108806 lbf
Speed up	26,2 m/min	86 ft/min
Speed down	26,2 m/min	86 ft/min

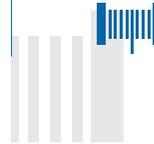
¹ with 3 m (10 ft) special mast ext. kit stroke is 21100 mm (831 in); add 700 mm (27.5 in) stroke in Quick Change version

Hydraulic system



Hydraulic system		
Main pumps flow	2x 358 / 518 l/min	2x 95 / 137 US gal/min
Third pumps flow	148 l/min	39 US gal/min
Hydraulic oil tank capacity	880 l	232 US gal

Winches



Main winch - standard

Type	Controlled descent	Controlled descent
Line pull (1 st layer)	352 kN	79131 lbf
Rope diameter	32 mm	1.3 in
Line speed (max)	80 m/min	262 ft/min

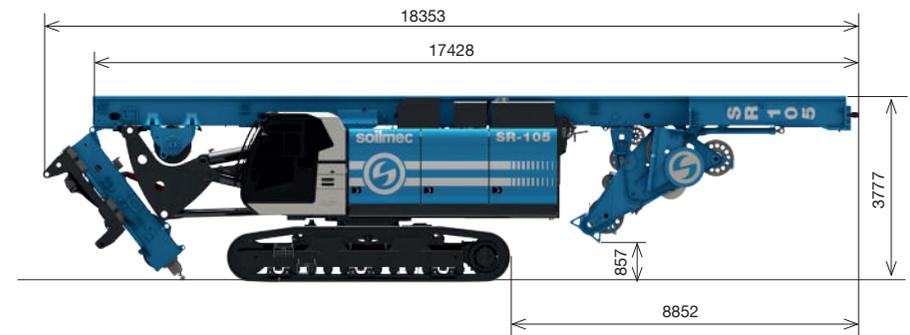
Main winch - on request

Type	Controlled descent Single layer	Controlled descent Single layer
Line pull (1 st layer)	352 kN	79131 lbf
Rope diameter	32 mm	1.3 in
Line speed (max)	80,3 m/min	262 ft/min

Auxiliary winch

Type	Controlled descent	Controlled descent
Line pull (1 st layer)	134 kN	30124 lbf
Rope diameter	22 mm	0.8 in
Line speed (max)	70 m/min	230 ft/min

Transport



Transport configuration

Width with / without crawlers	3400 / 3000 mm	134 / 118 in
Height with / without crawlers ¹	3750 / 3400 mm	148 / 134 in
Length without rotary cradle ²	15900 / 17900 mm	626 / 705 in
CCS Version - Weight std - min	72300 / 50200 kg	159393 / 110671 lb
WCS Version - Weight std - min	77400 / 58800 kg	170636 / 129630 lb

¹ For LDP CCS version add 245 mm (9.6 in) if cylinder is not removed

² standard / with 3 m (10 ft) special mast extension kit, weight increased by 2400 kg (5291 lb)

Configurations

UNDERCARRIAGE

Variable gauge, telescopic removable sides	●
Stabilizers cylinders	●
Hydraulic prearrangement for casing oscillator	○
Mechanical prearrangement for casing oscillator	●
VRM200KL casing oscillator	○
Radio remote control for tramping operation	●

UPPER STRUCTURE

Variable stackable counterweight 14900-14500 kg (32849-38580 lb)	●
Diesel engine CAT C15 ACERT EU Stage IIIA – US EPA Tier 3	○
Diesel engine Cummins X15 EU Stage V – US EPA Tier 4F	●
Start and slow system	●
Harness technology for electrical system	●
Automatic greasing package	○
Compressor kit	○
Removable catwalk 900 mm (35.4 in) wide c/w handrails	●
Foldable catwalk 900 mm (35.4 in) wide c/w handrails	○
Acoustic & light alarm for tramping	●
Lighting led system package	●
Sound proofed canopies	●
Silent pack	○
Hydraulic prearrangement for additional technologies	●

H-CAB

Front protective grille	●
Falling object protective structure (FOPS)	●
Lower front protective grille	○
Rearview mirrors	●
Comfort packakge	●
Operator seat (air suspension, lumbar support, fully adjustable positioning, safety belt & operator presence micro-switch)	●
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	●
Video control by 5 cameras with display in the cab	●
Inclinometer device with automatic verticality	●

WINCHES

Main winch SW350 model	●
Main winch SW350 model - single layer	○
Load cell for main winch	○
Limit switch for rope winding and winches	●
Depthmeter for main winch	●
Anti-slack system for main winch	○
Service winch SW130 model	●
Load cell for service winch	●
Swivel for auxiliary winch	○
Service rope holder	●

ROTARY UNIT

Rotaty unit c/w spin-off;	●
Replaceable drive ribs	●
Automatic greasing kit for cradle	●
Oil discharge conveying system	●

MAST

Upper foldable mast element	●
Lower foldable mast element	●
Automatic greasing package for cathead	○

KELLY BAR TECHNOLOGY

Rotary sleeve with 3 ribs	●
Cardan joint	●
Flange for casing driving d. 1500 mm (59 in)	●
Automatic return to the centre hole	○
Automatic greasing kit for winch crowd	○
Visualization of the kelly locking points	●
Telescopic mast foot (only for WCS)	●
Variable Drilling axis kit	●
Package for long mast - upgraded version	○
Auxiliary line restraint device	●

CFA TECHNOLOGY

Sleeve 6 m (19.7 in) long 25HD-5	○
Sleeve 8,5 m (27.8 in) long 25HD-5	○
CFA package for 26,5 m (87 in) ECT2	●
CFA package for 29,5 m (97 in) ECT2	○
CFA package for 32,5 m (107 in) ECT4	●
CFA package for 36,5 m (120 in) ECT4	○
DMS ON BOARD with automatic auger lifting	●
Concrete pipe on turret and mast	○
Autodrilling package	○

Autorotary package	○
Automatic greasing kit for sheeves block	○
Additional pull-down winch	○
Hydraulic universal openable lower guide Ø 1200mm (47.2 in)	●
Auger cleaner star type	○
Double roller auger cleaner Ø 1200 mm (47.2 in)	●
Wi-Fi pressure transducer kit for concrete line	○
Two pressure transducers kit	○
Hydraulic prearrangement for VTH-1 vibrator	○

OTHER TECHNOLOGIES

CSP technology 19,7 m (65 ft) cased depth for 4-lines pull version	○
Special undercarriage for CSP version	○
VDW technology for Quick Change std and extended version	○
DP/TCT technology for Quick Change	○
TJ technology for Quick Change	○

● standard ○ optional

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



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