



Hydraulic Rotary Rig

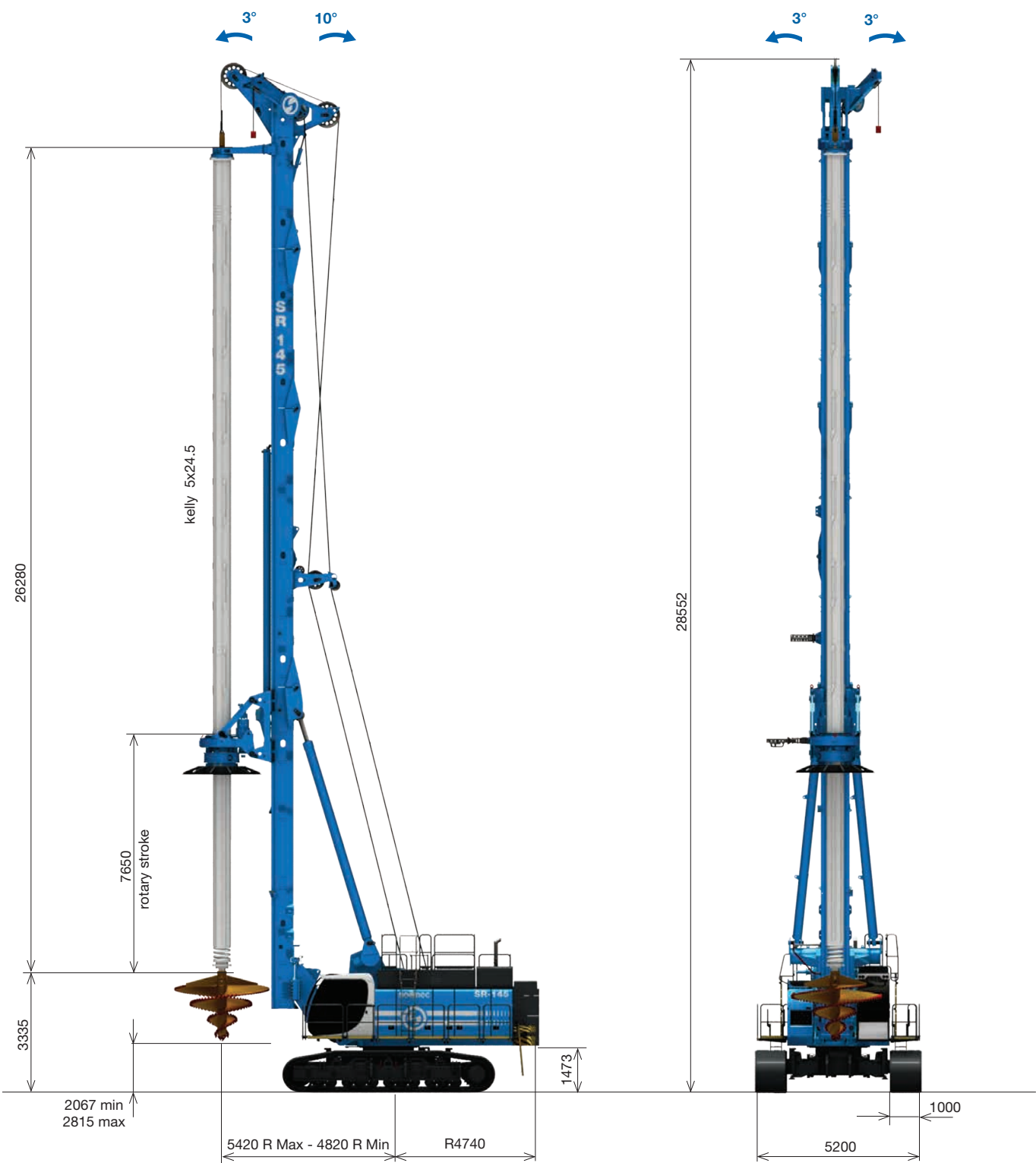
SR-145

HIT

soilmec 
Drilling and Foundation Equipment

SR-145 HIT Hydraulic Rotary Rig

LDP APPLICATIONS - Cilynder crowd system

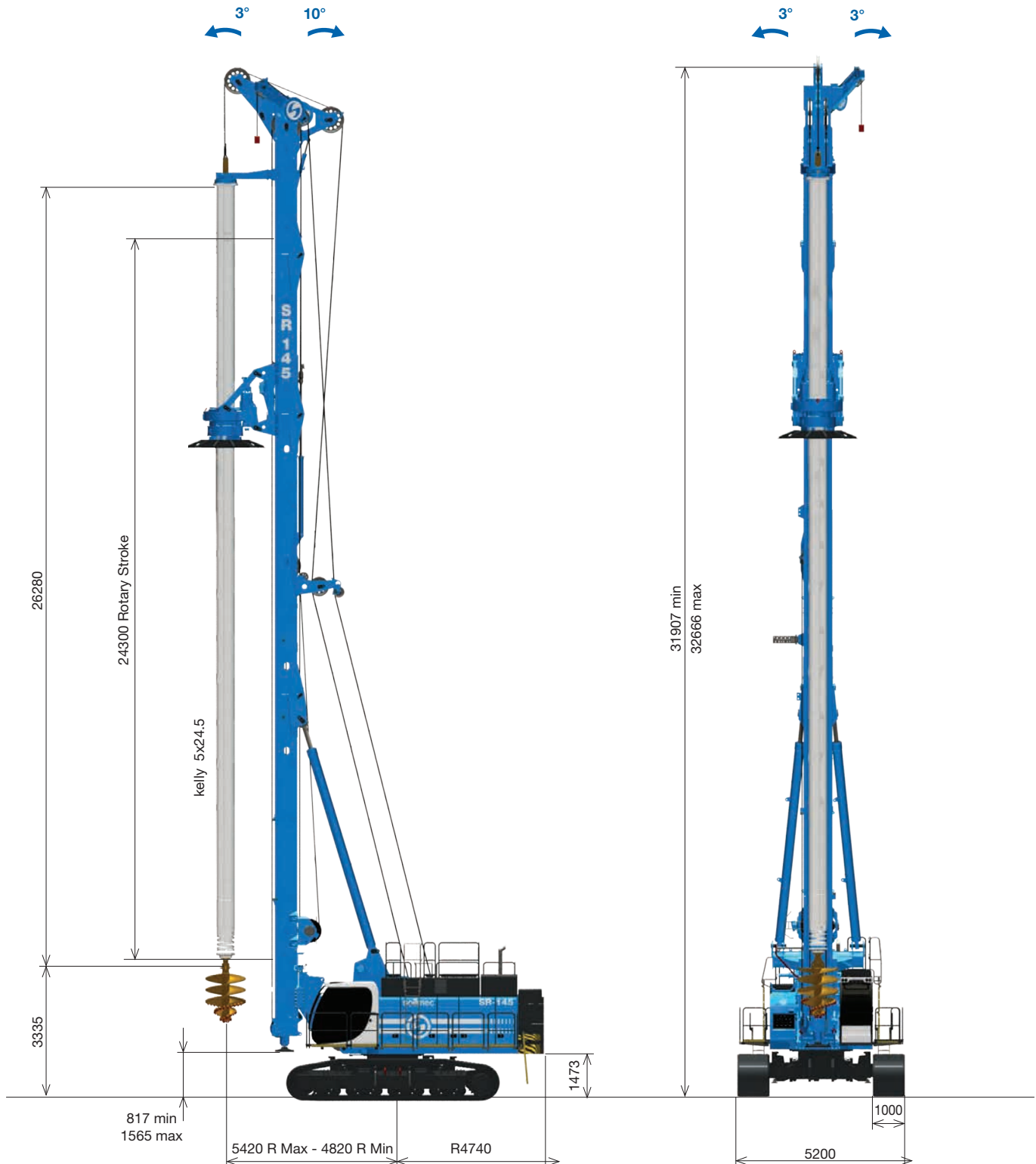


LDP Large Diameter Piles - CCS version		
Operating weight w/o kelly bar	142100 kg	313246 lb
Max pile diameter along mast	3000 mm	118 in
Max pile diameter with special kit	3500* mm	138* in
Max pile depth - friction kelly	138,8 m	455 ft
Max pile depth - locking kelly	115,5 m	379 ft

* increased drilling axis package

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LDP APPLICATIONS - Winch crowd system



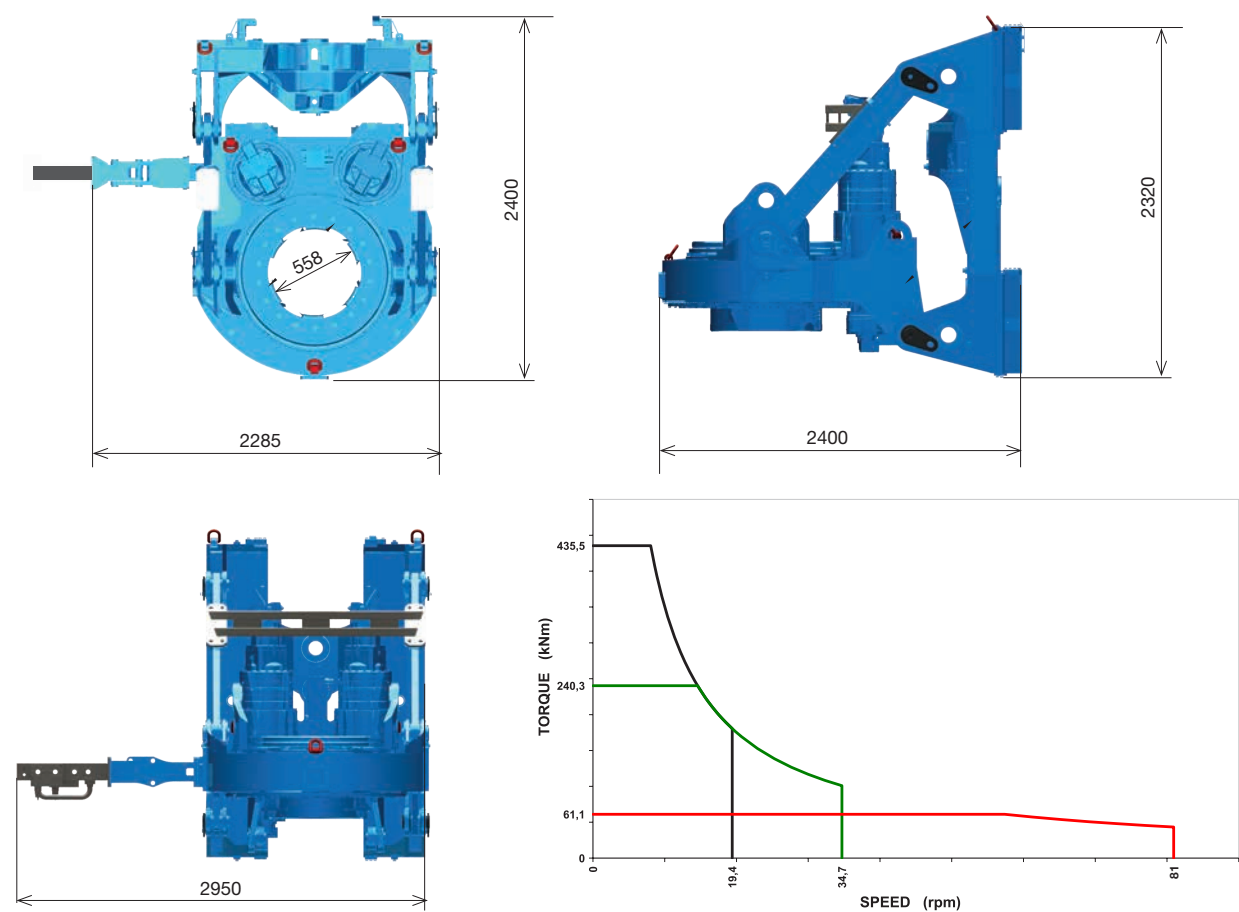
LDP_Large Diameter Piles - WCS version

Operating weight w/o kelly bar	144800 kg	319229 lb
Max pile diameter along mast	2800 mm	110 in
Max pile diameter with special kit	3300* mm	130* in
Max pile depth - friction kelly	138,8 m	455 ft
Max pile depth - locking kelly	115,5 m	379 ft

* increased drilling axis package

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ROTARY TABLE



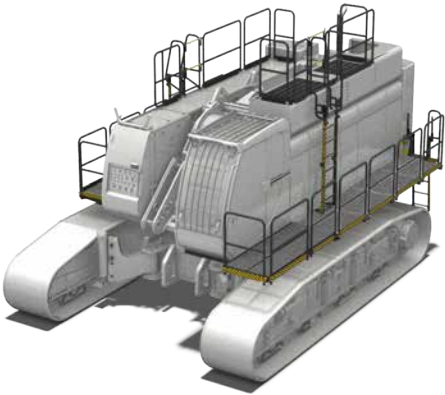
Rotary drive	Multigear version	Multigear version
- Max torque	435 kNm	320834 lbf*ft
- 1 st gear rated torque	411 kNm	303133 lbf*ft
- Speed of rotation (1 st gear)	19,4 rpm	19.4 rpm
- Speed of rotation (3 rd gear)	81 rpm	81 rpm
- Weight (w/o cradle & casing flange)	7000 kg	15432 lb

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Safety equipment compulsory for EC marking

On request whenever EC marking is not needed

- Catwalks 900 mm (3 ft) wide
- Ladder and handrails for both access levels
- Acoustic alarm for rotation and translation
- Radio remote control for tramming on ramp
- Video-camera set with 5 cameras included
- Rearview mirrors
- Led lights
- Oil discharge conveying system
- Load cell for service winch



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TECHNICAL DATA SHEET

CCS_ Cylinder Crowd System		
- Stroke	7650 mm	301 in
- Crowd force pull (down/up)	345 / 412 kN	77558 / 92620 lbf
- Fast speed up/down	20 m/min	66 ft/min
- Slow speed up/down	5,5 m/min	18 ft/min
WCS_ Winch Crowd System		
- Stroke	24300 mm	957 in
- Crowd force pull (down/up)	540 / 540 kN	121395 / 121395 lbf
- Fast speed up/down	33 m/min	108 ft/min
- Slow speed up/down	8,6 m/min	28 ft/min
Engine	CAT C18 Acert	CAT C18 Acert
- Rated output	470 kW @ 1800 rpm	630 HP @ 1800 rpm
- Engine conforms to Exhaust emission Standard	EU stage V-US EPA Tier4f	EU stage V-US EPA Tier4f
- Diesel tank capacity	1048 l	277 US gal
Main winch	controlled descent	controlled descent
- Line pull (1st layer)	420 kN	94418 lbf
- Rope diameter	36 mm	1.4 in
- Line speed (max.)	73 m/min	240 ft/min
Auxiliary winch	controlled descent	controlled descent
- Line pull (1st layer)	132 kN	29674 lbf
- Rope diameter	22 mm	0.9 in
- Line speed (max.)	71 m/min	233 ft/min
Hydraulic system		
- Flow rates (main circuits)	2x 444 l/min	2x 117 US gal/min
- Third pump flow	140 l/min	37 US gal/min
- Hydraulic oil tank capacity	1175 l	310 US gal
Undercarriage	variable gauge, telescoping removable sides	variable gauge, telescoping removable sides
- Overall width with retracted crawlers	3500 mm	138 in
- Overall width with extended crawlers	5200 mm	205 in
- Width of triple grouser track shoes	1000 mm	39 in
- Overall length of crawlers	6684 mm	263 in
- Traction force effective/nominal	813 kN	182766 lbf
- Travel speed	1,6 km/h	1.0 mph
Mast inclination (Backward/ Forward/Lateral)	10°/3°/3°	10°/3°/3°

STANDARD EQUIPMENT

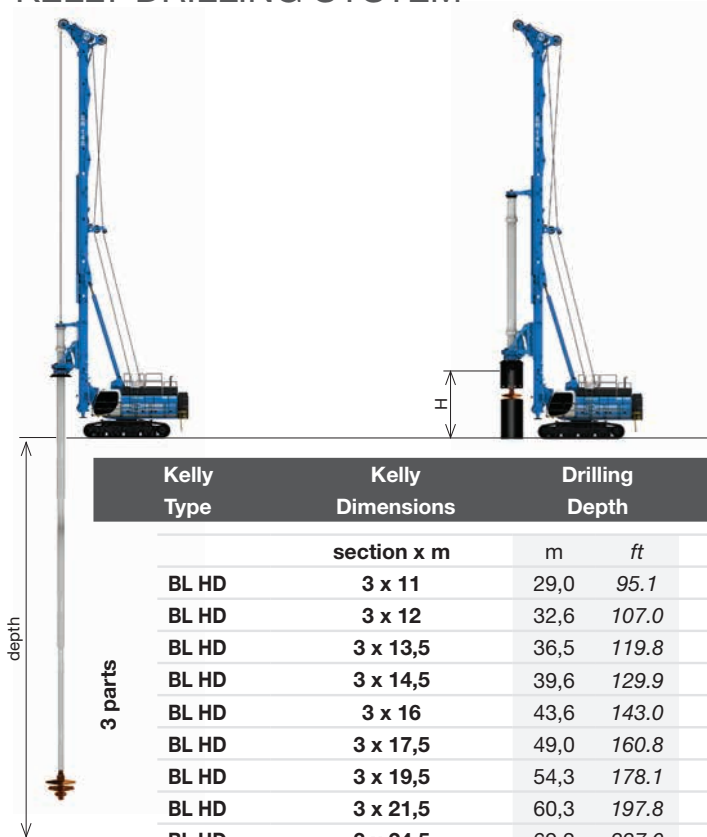
• Rotary table replaceable drive ribs • Emergency mode of operation for engine • Main and auxiliary winch controlled descent type with special grooving • Hoist limit switch on main and service rope • Service rope parking point • GSM/GPRS/GPS modem kit • DMS system electronic monitoring and visualization system • Mast inclination measurement on X/Y axes (digital/ analog display) • Automatic vertical mast alignment • Depth measuring device • Automatic greasing kit • Lubricator pump kit for rotary pads cradle	• Rotary speed measuring device • Rotary power control • Variably stackable counterweight • Removable undercarriage • Variable gauge undercarriage • Wider triple grouser track shoes • Transport securing lugs on crawler units • Oscillator attachment brackets • 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 • Auto low idle system • Color warning light • 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
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OPTIONAL EQUIPMENT

• Single layer main winch 470 kN (155658 lbf) • Diesel Engine with EU Stage III A - US EPA Tier 3 motorization • Kit for disassembling undercarriage • Fiberglass canopies • Swivel for auxiliary rope • Flange for bucket opening	• Hydraulic prearrangement for casing oscillator • Mast extension for special configuration • Mast ladder kit • Parachute safety kit • Limit switch for rope winding and winches • Free fall service winch • Double roller auger cleaner	• Prearrangement for VTH-1 • Air compressor kit • Auxiliary rope fixing kit • Increased drilling axis kit • Main rope antislak kit • Led lighting kit • Water jet cleaner kit
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KELLY DRILLING SYSTEM

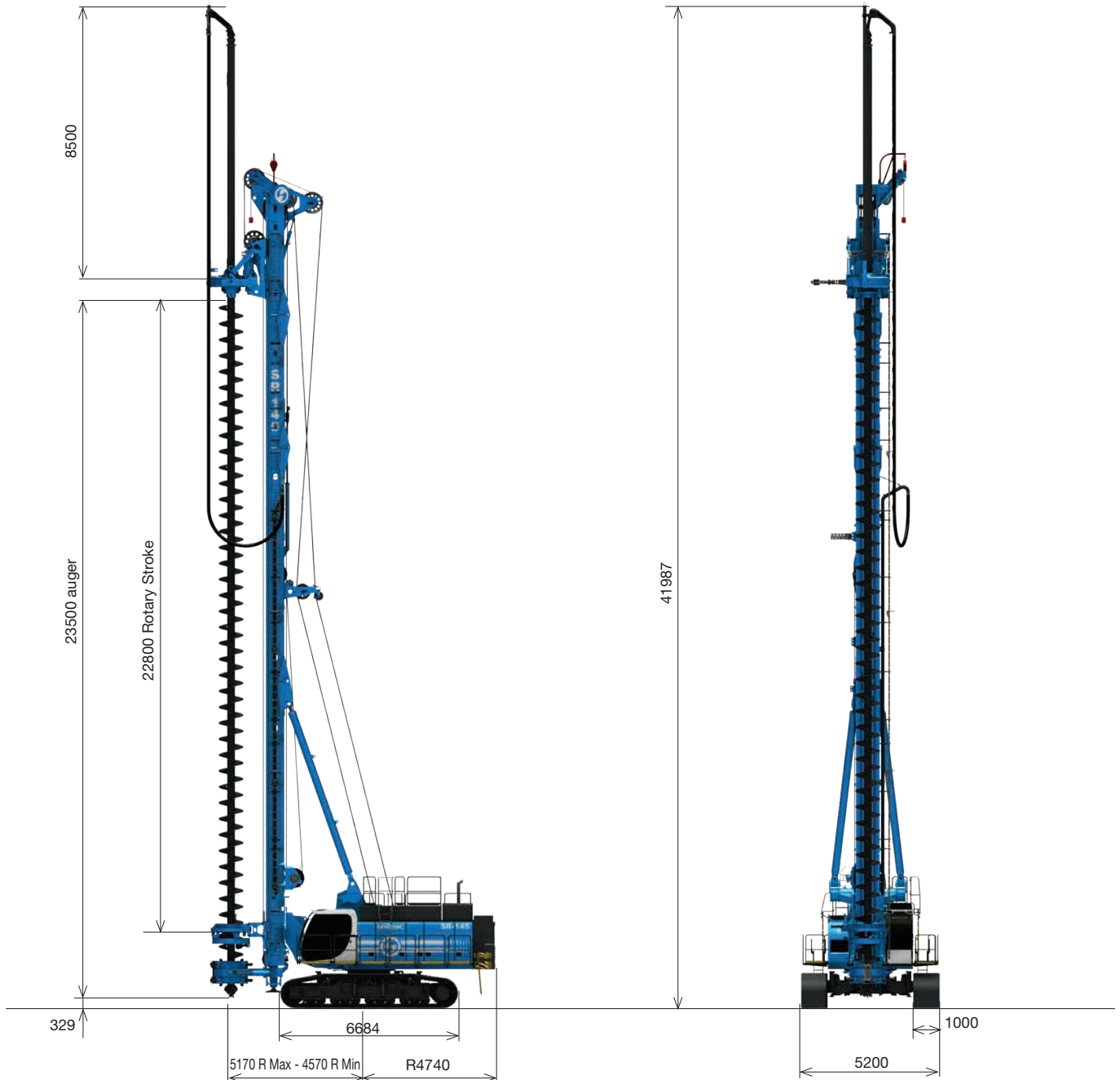


Kelly Type	Kelly Dimensions	Drilling Depth		Weight		CCS SYSTEM		WCS SYSTEM	
						H		H	
	section x m	m	ft	t	ton (US)	m	ft	m	ft
3 parts	BL HD 3 x 11	29,0	95.1	7,8	8.6	9,3	30.5	16,6	54.5
	BL HD 3 x 12	32,6	107.0	8,4	9.3	9,3	30.5	15,4	50.5
	BL HD 3 x 13,5	36,5	119.8	9,2	10.1	9,3	30.5	14,1	46.3
	BL HD 3 x 14,5	39,6	129.9	9,8	10.8	9,3	30.5	13,1	43.0
	BL HD 3 x 16	43,6	143.0	10,6	11.7	9,3	30.5	11,7	38.4
	BL HD 3 x 17,5	49,0	160.8	11,4	12.6	9,3	30.5	9,9	32.5
	BL HD 3 x 19,5	54,3	178.1	12,5	13.8	8,2	26.9	8,2	26.9
	BL HD 3 x 21,5	60,3	197.8	13,6	15.0	6,2	20.3	6,2	20.3
	BL HD 3 x 24,5	69,2	227.0	15,3	16.9	3,2	10.5	3,2	10.5
4 parts	BL HD 4 x 11	38,5	126.3	9,2	10.1	9,3	30.5	16,6	54.5
	BL HD 4 x 12	43,7	143.4	9,8	10.8	9,3	30.5	15,4	50.5
	BL HD 4 x 13,5	48,4	158.8	10,8	11.9	9,3	30.5	14,1	46.3
	BL HD 4 x 14,5	52,9	173.6	11,5	12.7	9,3	30.5	13,1	43.0
	BL HD 4 x 16	58,3	191.3	12,4	13.7	9,3	30.5	11,7	38.4
	BL HD 4 x 17,5	65,4	214.6	13,4	14.8	9,3	30.5	9,9	32.5
	BL HD 4 x 19,5	72,5	237.9	14,7	16.2	8,2	26.9	8,2	26.9
	BL HD 4 x 21,5	80,5	264.1	16,0	17.6	6,2	20.3	6,2	20.3
	BL HD 4 x 24,5	92,4	303.1	17,9	19.7	3,2	10.5	3,2	10.5
5 parts	FR/BL HD 5 x 11	48,5	159.1	10,5	11.6	9,3	30.5	16,6	54.5
	FR/BL HD 5 x 12	54,4	178.5	11,3	12.5	9,3	30.5	15,4	50.5
	FR/BL HD 5 x 13,5	60,8	199.5	12,5	13.8	9,3	30.5	14,1	46.3
	FR/BL HD 5 x 14,5	66,1	216.9	13,3	14.7	9,3	30.5	13,1	43.0
	FR/BL HD 5 x 16	72,8	238.8	14,5	16.0	9,3	30.5	11,7	38.4
	FR/BL HD 5 x 17,5	81,8	268.4	15,7	17.3	9,3	30.5	9,9	32.5
	FR/BL HD 5 x 19,5	90,7	297.6	17,3	19.1	8,2	26.9	8,2	26.9
	FR/BL HD 5 x 21,5	100,5	329.7	18,9	20.8	6,2	20.3	6,2	20.3
	FR/BL HD 5 x 24,5	115,5	378.9	21,3	23.5	3,2	10.5	3,2	10.5
6 parts	FR HD 6 x 16*	88	288.7	15,2	16.8	9,3	30.5	11,7	38.4
	FR HD 6 x 17,5*	98,3	322.5	16,5	18.2	9,3	30.5	9,9	32.5
	FR HD 6 x 19*	105,8	347.1	17,7	19.5	8,7	28.5	8,7	28.5
	FR HD 6 x 19,5*	108,9	357.3	18,1	20.0	8,2	26.9	8,2	26.9
	FR HD 6 x 21,5* **	120,9	396.7	19,8	21.8	6,2	20.3	6,2	20.3
	FR HD 6 x 24,5* **	138,7	455.1	22,3	24.6	3,2	10.5	3,2	10.5

* Rotary head derated
** Main winch 470 k N required
Reduced drilling depth by 2,4 m (7.8 ft) w/o lower mast section or CCS in high position. With Kelly c/w stub 200x200.
Drilling depth with tool 1500 mm (4.9 ft) long

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CFA APPLICATIONS Quick conversion kit

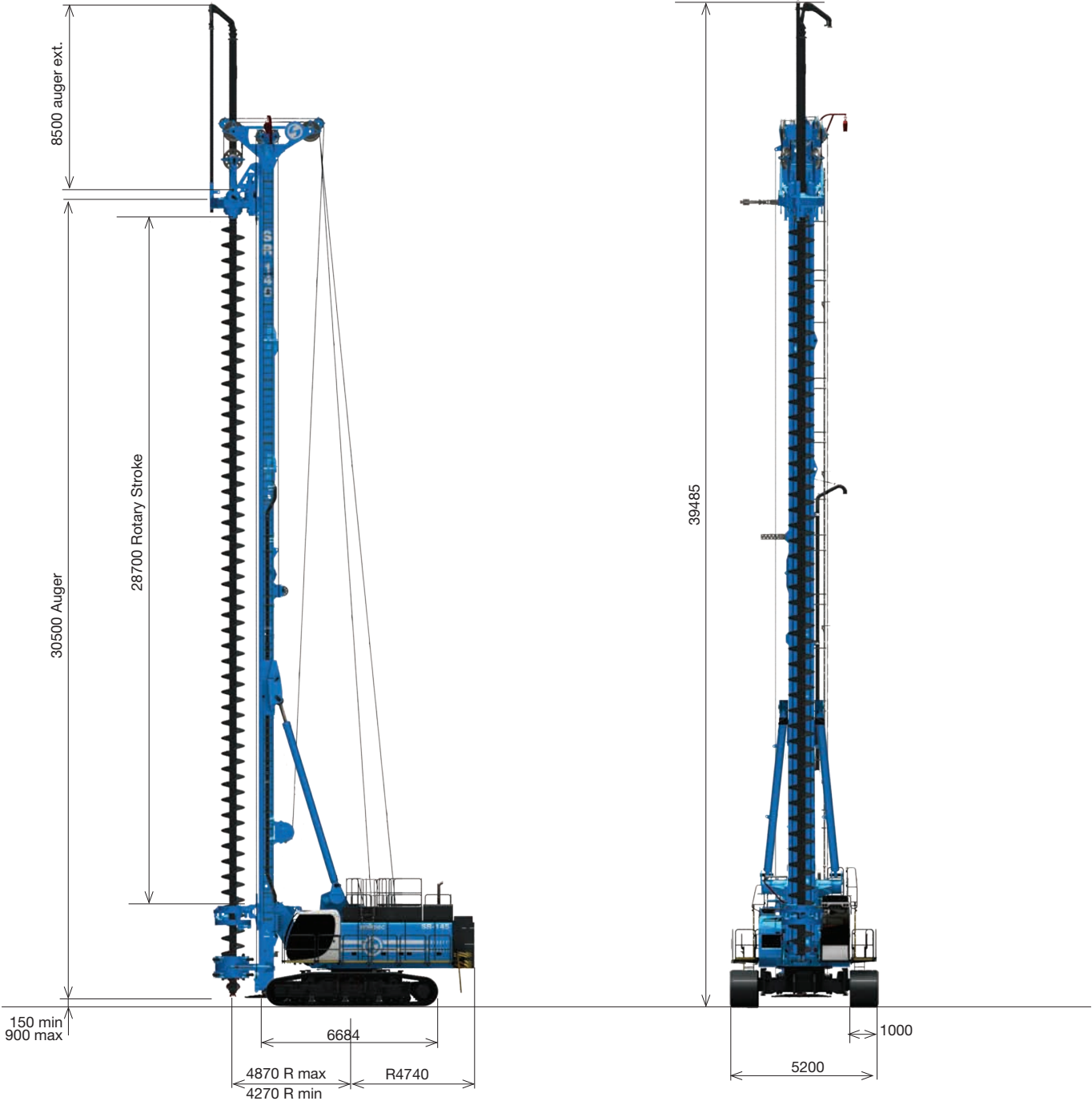


CFA Continuous Flight Auger - Quick conversion kit

- Operating weight c/w auger ext, w/o auger	147800 kg	325840 lb
- Max pile diameter	1200 mm	47.24 in
- Max pile depth with star auger cleaner 8,5 m auger ext.	32,5 m	107 ft
- Max pile depth with double roller auger cleaner 8,5 m auger ext.	31 m	102 ft
- Extraction force	1200 kN	269766 lbf
- Crowd force on auger	540 kN	121395 lbf

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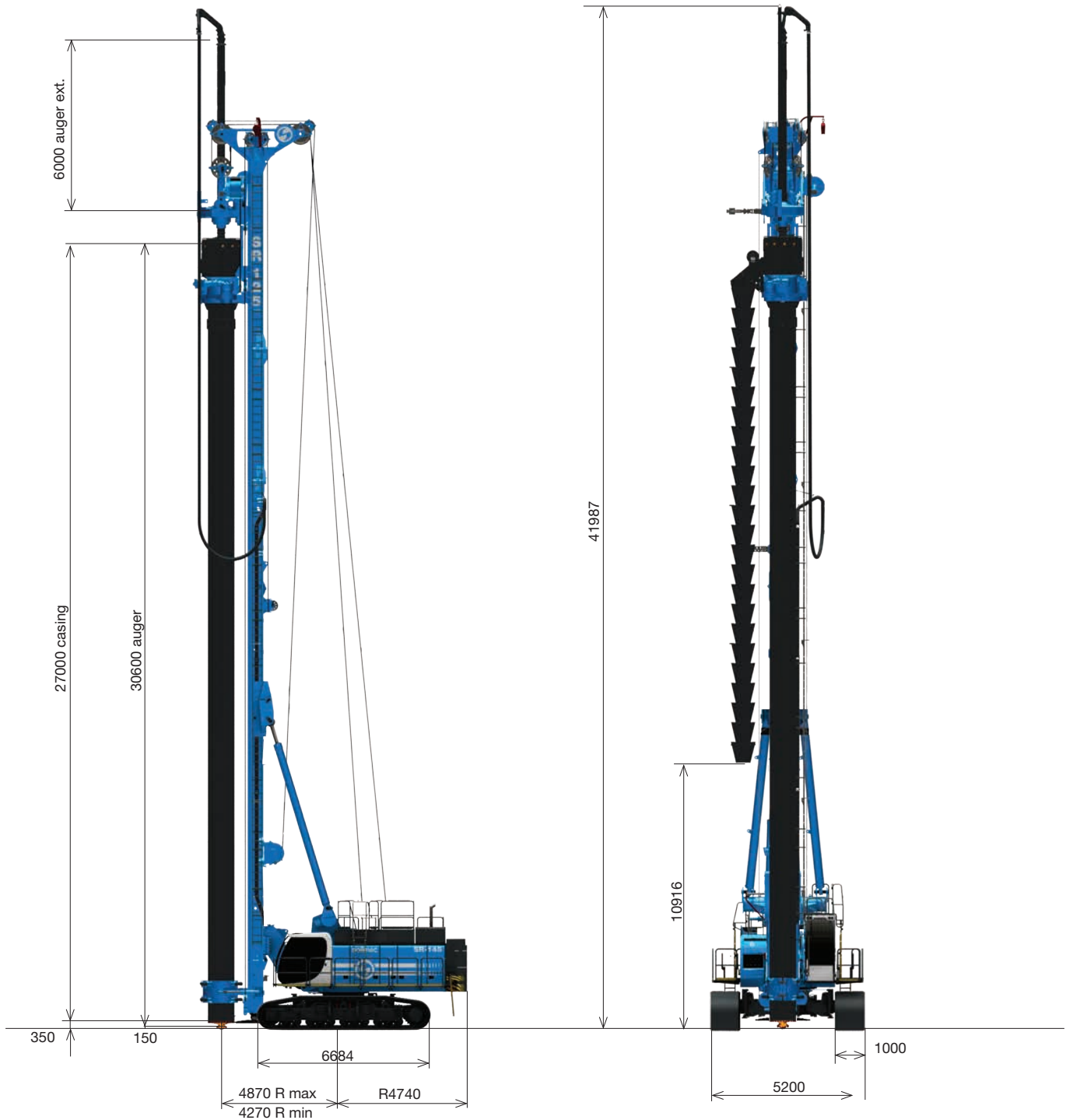
CFA APPLICATIONS 4 LINES PULL



CFA Continuous Flight Auger - 4° Line pull		
- Operating weight c/w auger ext, w/o auger	144200 kg	316363 lb
- Max pile diameter	1200 mm	47.24 in
- Max pile depth with star auger cleaner 8,5 m auger ext.	34,5 m	105 ft
- Max pile depth with double roller auger cleaner, with 8,5 m auger ext.	33 m	100 ft
- Extraction force	1362 kN	306184 lbf
- Crowd force on auger optional	540 kN	121395 lbf
CFA Continuous Flight Auger - 4° Line pull - Special version		
- Operating weight c/w auger ext, w/o auger	145800 kg	321431 lb
- Max pile diameter	1200 mm	47.24 in
- Max pile depth with star auger cleaner 8,5 m auger ext.	38,5 m	126 ft
- Max pile depth with double roller auger cleaner, with 8,5 m auger ext.	37 m	121 ft
- Extraction force	1280 kN	287750 lbf
- Crowd force on auger optional	540 kN	121395 lbf

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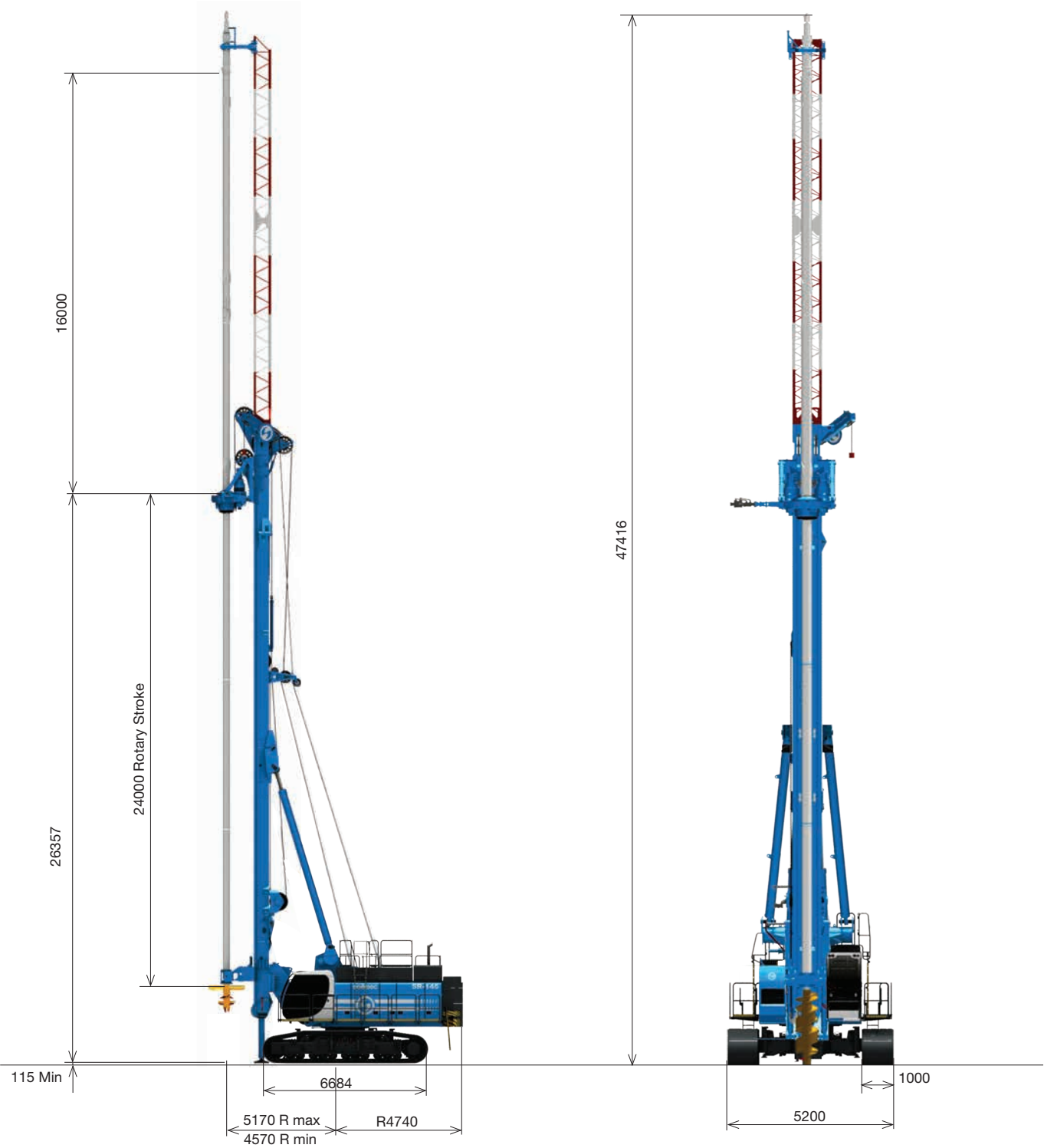
CAP/CSP APPLICATION 4 LINES PULL



CAP/CS - Cased Augered & Secant Piles	4 LINES PULL		VDW QUICK CHANGE	
- Operating weight c/w auger ext, w/o auger	160600 kg	354059 lb	157300 kg	346784 lb
- Max pile diameter	1200 mm	47.2 in	800 mm	31 in
- Max pile depth with 6 m auger extension (quick c/w 8,5 m Aug. ext)	28,5 m	94 ft	30 m	98 ft
- Max pile depth with auger cleaner, with 6 m auger ext. (quick c/w 8,5 m Aug. ext)	28 m	92 ft	29,5 m	97 ft
- Max cased depth c/w - w/o auger cleaner	22/22,5 m	72/74 ft	20,8/21,3 m	68/70 ft
- Casing rated torque	480 kNm	362874 lbf*ft	411 kNm	303133 lbf*ft
- Casing speed of rotation (max)	9,6 rpm	9.6 rpm	9,7 rpm	9.7 rpm
- Casing pull up/down	940/540 kN	211317/121395 lbf	940/540 kN	211317/121395 lbf
- Auger rated torque	227/411 kNm	167424/184387 lbf*ft	250 kNm	184387 lbf*ft
- Auger speed of rotation (max)	34,7 rpm	34.7 rpm	19,6 rpm	19.6 rpm
- Auger pull up	1362 kN	306184 ft	720 kN	161862 ft

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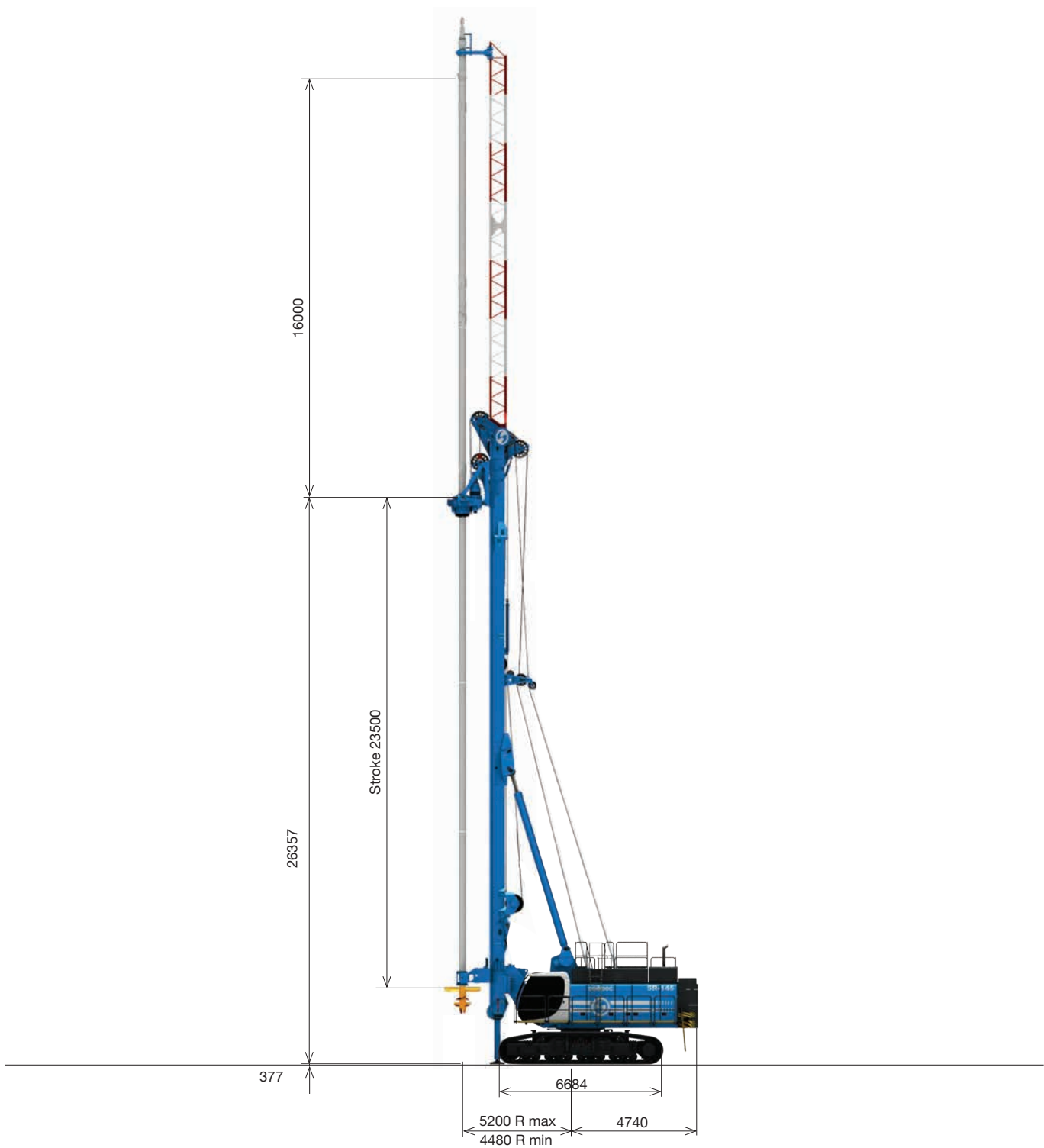
DP/TCT APPLICATIONS Quick Change



DP_Displacement Piles - Quick Change		
- Max DP pile diameter	800 mm	31.50 in
- Max TCT pile diameter	1000 mm	39.37 in
- Max pile depth with 8,5 m string extension	31,5 m	103 ft
- Lattice mast extension	15,8 m	51.84 ft
- Max depth c/w lattice boom mast extension	39 m	127.95 ft

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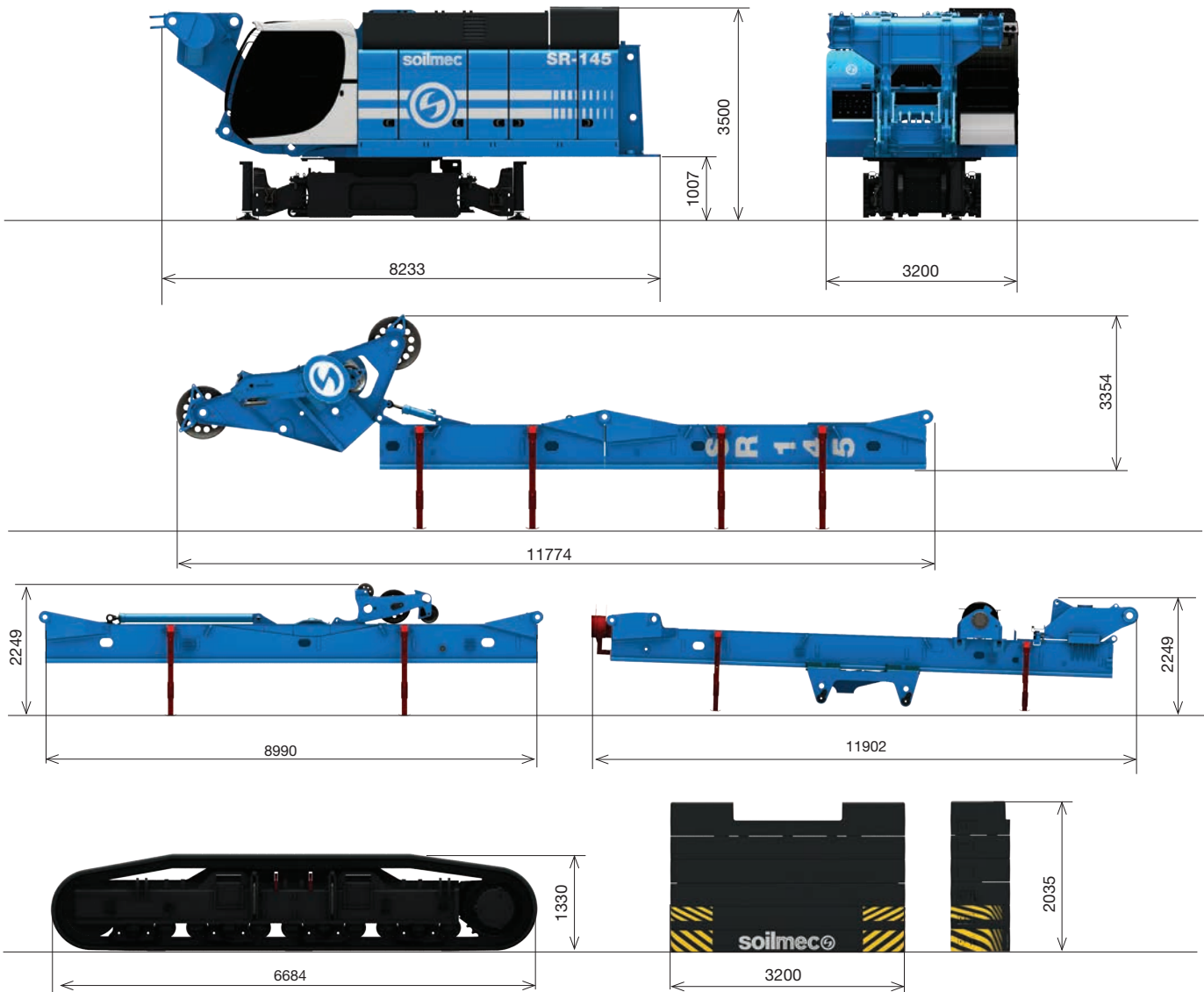
TJ/SOIL MIXING APPLICATIONS Quick Change



TJ_Turbojet® - Quick Change		
- Max treatment diameter	1500 mm	59 in
- Max pile depth with 6 m string extension	29 m	95 ft
- Lattice mast extension	15,8 m	51.84 ft
- Max depth c/w lattice boom mast extension	39 m	127.95 ft

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TRANSPORT, DIMENSIONS & WEIGHTS



Transport configuration		
- Transport width with/without crawlers	3500 / 3200 mm	137.80 / 126 in
- Transport length with/without base mast	18100 / 8233 mm	713 / 321 in
- Transport height	3966 mm	156.14 in
- CCS Version - Transport weight std - min	93700 / 48900 kg	206571 / 107805 lb
- WCS Version - Transport weight std - min	97900 / 48900 kg	215830 / 107805 lb
- Mast base weight	15800 kg	34835 lb
- Mast intermediate part weight	5600 kg	12346 lb
- Mast upper part and cat head weight	7400 kg	16314 lb
- Side frames weight	26600 kg	58643 lb
- Counterweight (single elements 4/4,4)	26000 kg	57320 lb

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