

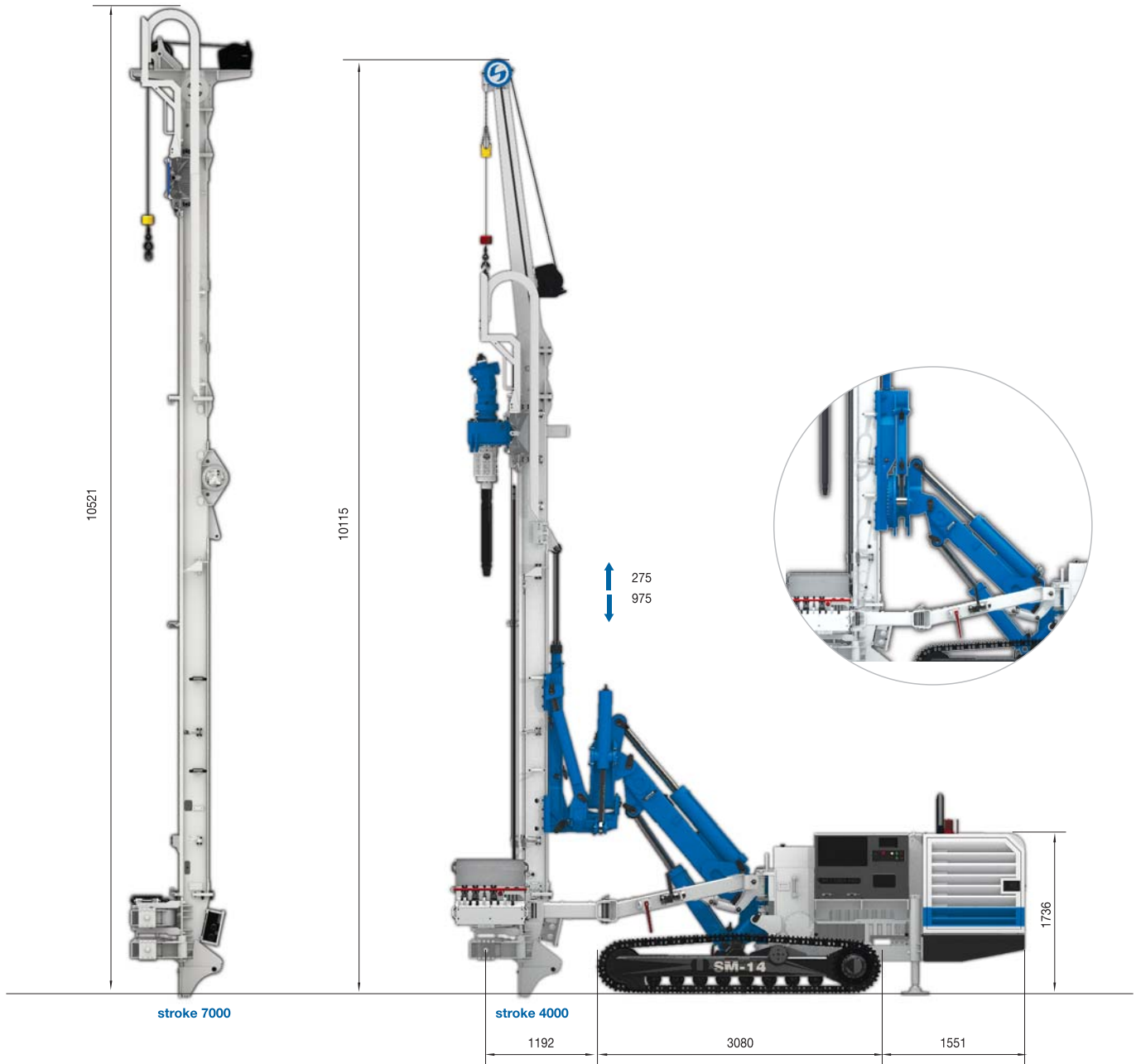
Hydraulic Microdrilling Rig

# SM-14



**soilmeco**   
Drilling and Foundation Equipment

# SM-14 APPLICATIONS



Hoist & Feed system	Cylinder	Cylinder	Motoreducer	Motoreducer
Feed stroke	4000 mm	157.5 in	4350 - 7000 mm	171.3 - 275.6 in
Rod length type (c/w one rotary head)	3 m	9.8 ft	3 / 6 m	9.8 / 19.7 ft
Maximum hoist pull/feed force	89 / 45 kN	20008 / 10116 lbf	72 / 72 kN	16186 / 16186 lbf
Maximum speed (fast/low operation)	28 / 6 m/min	92 / 20 ft/min	29 / 5 m/min	95 / 16 ft/min

Rotary head range	HT 1200V	HT 1200V	HT 1400V	HT 1400V
Gear box type	Variable	Variable	Variable	Variable
Maximum torque	1210 daNm	8924 lbf*ft	1360 daNm	10031 lbf*ft
Maximum rotation	277 rpm	277 rpm	229 rpm	229 rpm
Hollow shaft	114 mm	4.5 in	114 mm	4.5 in
Inner passage	124 mm	4.9 in	124 mm	4.9 in
Maximum tools power	70 kW	94 HP	65 kW	87 HP

# SM-14 TECHNICAL DATA SHEET

<b>Undercarriage</b>		
Track shoe width	400 mm	15.7 in
Wheel base (centre idler to centre sprocket)	2481 mm	97.7 in
Overall length	3080 mm	121.2 in
Overall width (not extendable crawler)	2300 mm	90.6 in
Travelling speed	2,70 km/h	1.68 mph
Max climbing capacity (gradeability)	60 % (30°)	60 % (30°)
Traction force	123 kN	27651 lbf
Average ground pressure	0,070 MPa	10.2 psi
Ground stabilizers	n° 2 fixed on rear	n° 2 fixed on rear
<b>Diesel Engine</b>		
	CUMMINS QSB 4.5	CUMMINS QSB 4.5
Emission certification	Stage IIIA - Tier 3 and Stage IIIB -Tier 4i	Stage IIIA - Tier 3 and Stage IIIB -Tier 4i
Aspiration	turbocharged and charge air cooled	turbocharged and charge air cooled
Power rating	119 kW @ 2200 rpm	159 HP @ 2200 rpm
Fuel tank capacity	200 l	53 US gal
Sound power level and pressure level	LwA 100 - LpA 74 dB(A)	LwA 100 - LpA 74 dB(A)
<b>Electric motor (optional)</b>		
	SIEMENS 4 poles 50Hz 380 / 660 V	SIEMENS 4 poles 50Hz 380 / 660 V
Power rating	90 kW @ 1485 rpm	121 HP @ 1485 rpm
<b>Hydraulic system</b>		
Main pumps: variable axial pumps	156 + 156 l/min	41.2 + 41.2 US gal/min
Set pressure main pumps	28 MPa	4061 psi
Auxiliary pumps: gear pumps	20 l/min	5.3 US gal/min
Hydraulic oil tank capacity	400 l	106 US gal
<b>Clamp &amp; hydraulic joint breaker</b>		
Nominal size	50 - 415 mm	2.0 - 16.3 in
Maximum clamping force	266 kN	59798 lbf
Maximum breaking torque	5060 kN	37321 lbf*ft
Pull-up extractor clamp force/stroke	100 kN / 400 mm	22481 lbf / 3.9 in
<b>Service winch</b>		
	M5 - L2 - T5	M5 - L2 - T5
Type	controlled descent	controlled descent
1st layer line pull	20 kN	4496 lbf
1st layer nominal rope speed	46 m/min	151 ft/min
Rope diameter	10 mm	0.39 in
Rope capacity / Rope fitted	46 / 40 m	150.9 / 131.2 ft
<b>Rod carousel</b>		
N. of rods	3 - 10	3 - 10
Rod diameter	76 - 114 mm	3.0 - 4.5 in
Rod length	3 m	9.8 ft
Maximum loaded rods weight	200 / 600 kg	441 / 1323 lb

## STANDARD EQUIPMENT

- Crawler undercarriage with  $\pm 10^\circ$  tilting gauge
- Diesel Engine Cummins
- Rotary head HR12 type complete with floating system
- Drill mast with cylinder crowd system for 4000 mm stroke
- Clamp and breaker 50-315 mm
- Drilling controls by means of assembled panel
- Counter side c/w 2 cylinders for 4x90° sectors
- Hydraulic control board for drilling
- Radio remote control for tracking and positioning

## OPTIONAL EQUIPMENT

- Electr. engine (90 kW / 121 BHP @ 1485 rpm)
- Modular mast for 4 m or 7 m stroke complete with motoreducer crowd system
- Wide range of rotary head up to 2500 daNm
- Rod carousel up to 10 rods
- Hydraulic lifting crane: 400 kg @ 6m
- Foam pump
- Mud / water pump
- Clamp and breaker up to 60-415mm
- Slew ring on the mast
- Double rotary
- Jet grouting kit for T1/T1S and T2 type
- CFA kit for special technologies
- Top hammer
- Articulation 90° joint
- Service winch with jib extension

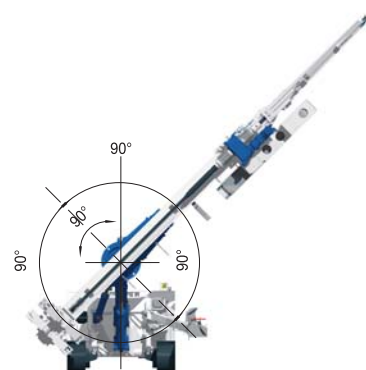
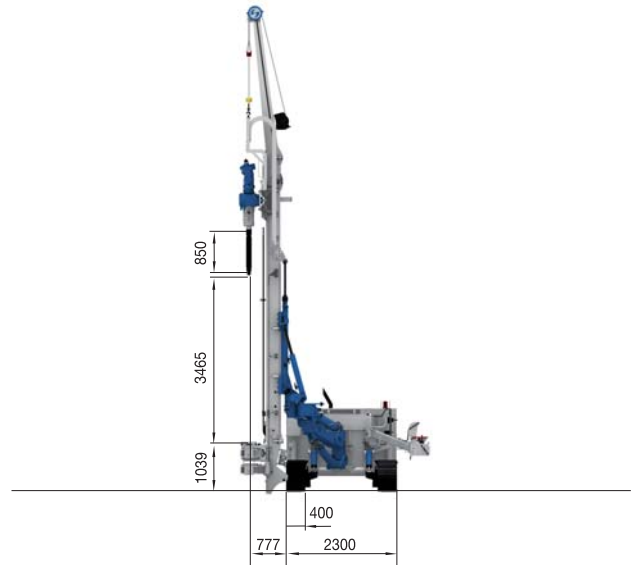
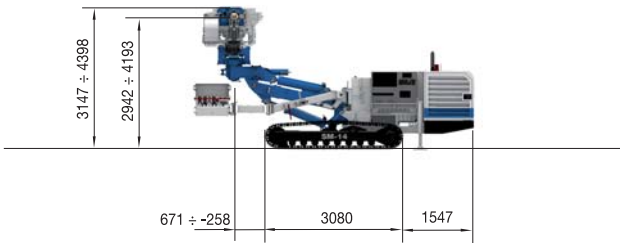
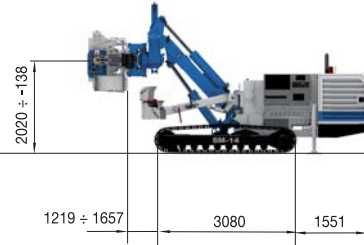
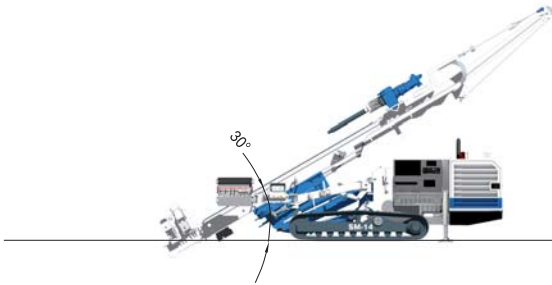
# SM-14 JET GROUTING

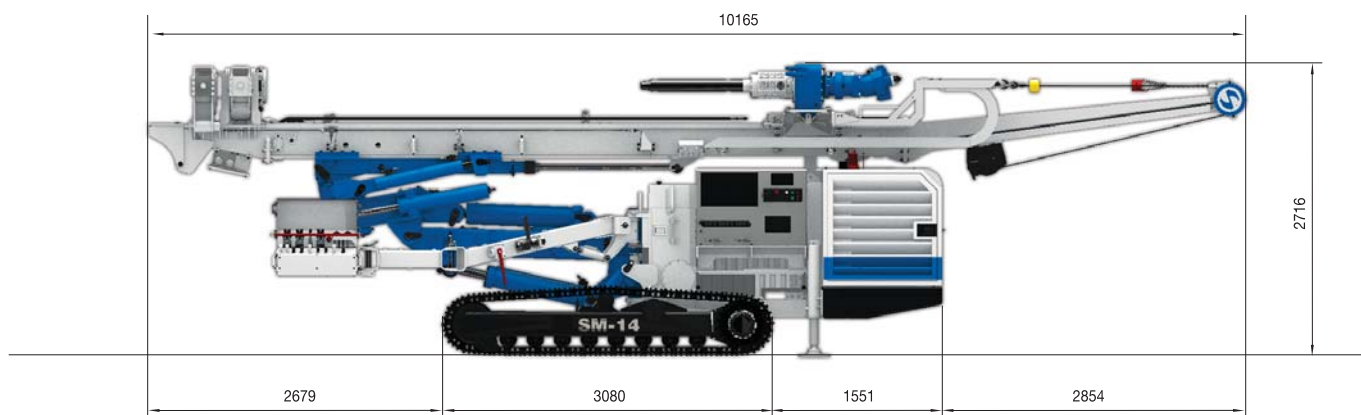
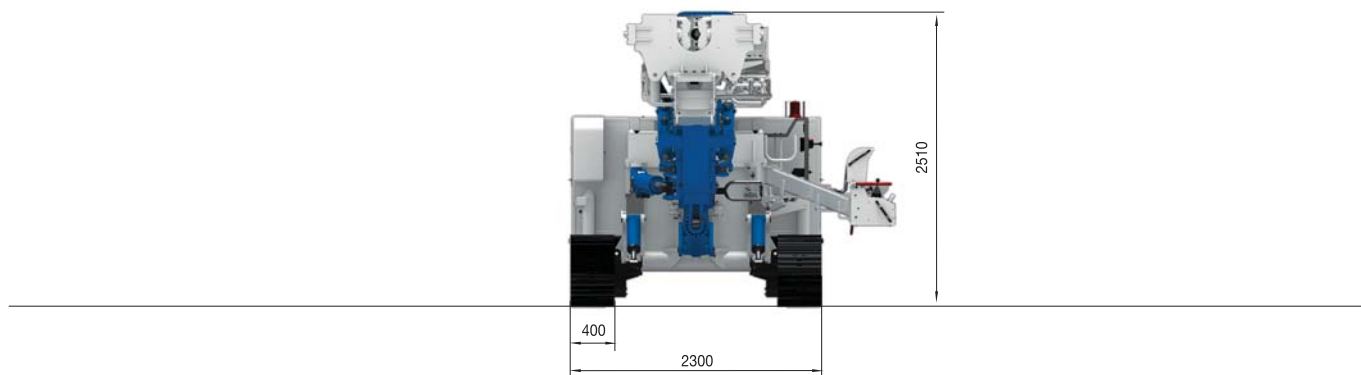


## JET GROUTING VERSION

Operating weight in jetting version	15000 / 15100 kg	33069 / 33290 lb
Rod diameter	90 - 114 mm	3.5 - 4.5 in
Max treatment depth in a single passage	18,5 m	61 ft
Drillguide extensions	4,6 + 10 m	13.1 + 32.8 ft

# SM-14 MOVIMENTATIONS





Transport		
Transport width	2300 mm	91 in
Transport height	2716 mm	107 in
Transport length stroke 4000/ stroke 7000	10165/10759 mm	400.2/423.6 in
Transport weight stroke 4000/ stroke 7000	14300/14600 kg	31526/32187 lb
* Containerizable		

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