

Hydraulic Microdrilling Rig

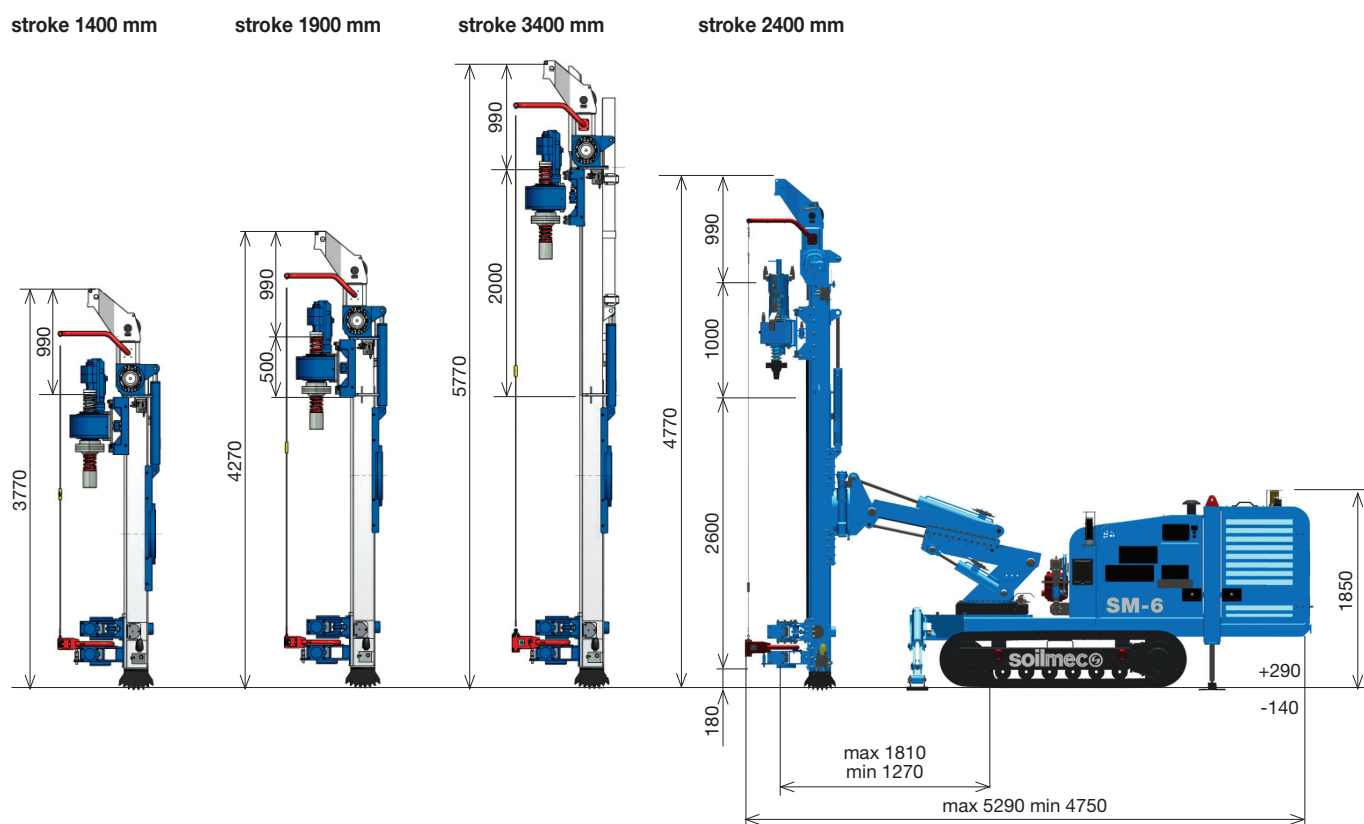
SM-6



soilmec 
Drilling and Foundation Equipment

SM-6 Hydraulic Microdrilling Rig

APPLICATIONS



Hoist & Feed system				Motoreducer				
Feed stroke	1400 mm	55.1 in	1900 mm	74.8 in	2400 mm	94.5 in	3400 mm	133.9 in
Rod length type (c/w one rotary head)	1,0 m	3.3 ft	1,5 m	4.9 ft	2 m	6.6 ft	3 m	9.8 ft
Maximum hoist pull/feed force	52 / 52 kN	11690 / 11690 lbf	52 / 52 kN	11690 / 11690 lbf	52 / 52 kN	11690 / 11690 lbf	52 / 52 kN	11690 / 11690 lbf

Rotary head range	HR6F		HR7G		HR9F		HT1700		HT3400	
Gear ratio / Type	2/Hydraulic	2/Hydraulic	6/Manual	6/Manual	2/Hydraulic	2/Hydraulic	3/Hydraulic	3/Hydraulic	3/Hydraulic	3/Hydraulic
Max torque	575 daNm	4241 lbf*ft	700 daNm	5163 lbf*ft	810 daNm	5974 lbf*ft	1900 daNm	14013 lbf*ft	3400 daNm	3400 daNm
Max drilling speed	190 rpm	190 rpm	860 rpm	860 rpm	130 rpm	130 rpm	105 rpm	105 rpm	53 rpm	53 rpm
Inner passage	117 mm	4.6 in	66 mm	2.6 in	117 mm	4.6 in	100 mm	3.9 in	100 mm	100 mm

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TECHNICAL DATA SHEET

Operating weight (approx.)			7000 kg	15432 lb
Undercarriage				
- Track shoe width			300 mm	11.8 in
- Wheel base (centre idler to centre sprocket)			1780 mm	70.1 in
- Overall length			2303 mm	90.7 in
- Overall width (not extendable crawler)			1700 mm	67 in
- Travelling speed			1,65 km/h	1.03 mph
- Max climbing capacity (gradeability)			34 % (19°)	34 % (19°)
- Average ground pressure			0,067 MPa	9.7 psi
- Ground stabilizers	n°2 fixed with inclined arm on front + n°2 fixed on rear		n°2 fixed with inclined arm on front + n°2 fixed on rear	
Power pack				
- Diesel Engine make and model			Deutz TCD3.6 L04	Deutz TCD3.6 L04
- Emission certification			EU stage IV - US EPA tier4f	EU stage IV - US EPA tier4f
- Diesel Engine power rating			100 kW @ 2000	134 HP @ 2000
- Fuel tank capacity			160 l	42 US gal
- Sound power level and sound pressure level			LwA 105 - LpA 74 dB(A)	LwA 105 - LpA 74 dB(A)
Hydraulic system				
- Main pumps: variable axial pumps			200 l/min	53 US gal/min
- Set pressure main pumps			300 MPa	43511 psi
- Auxiliary pumps: gear pumps			86 + 23 l/min l/min	23 + 6 US gal/min
- Hydraulic oil tank capacity			270 l	71 US gal
Clamp & hydraulic joint breaker				
- Nominal size			50 - 220 mm	2.0 - 8.7 in
- Maximum clamping force			140 kN	31473 lbf
- Maximum breaking torque			3000 daNm	22127 lbf•ft
Service winch				
- Type			controlled descent	controlled descent
- 1st layer line pull			5 kN	1124 lbf
- 1st layer nominal rope speed			42 m/min	138 ft/min
Rope diameter			6 mm	0.24 in

STANDARD EQUIPMENT

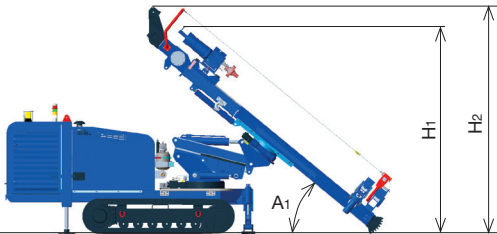
- Steel undercarriage: width 1700 mm and shoes 300 mm
- Load sensing hydraulic system. Main pump: variable axial type
- Kinematic mechanism: Swiveling boom articulation by slew ring on the base machine enables parallel drilling on the tracks up to +/- 90°
- Counter slide: slew ring on mast for +/- 180° rotation
- Sliding mast by cylinder
- Telescopic boom of 400 mm on base carrier
- Modular mast and hoist system by motoreduced
- Rotary cradle with side shifting
- Full radio remote control

OPTIONAL EQUIPMENT

- Undercarriage with rubber crawler
- Wide range of feed stroke: 1400 - 1900 - 3400 mm
- Wide range of rotary heads
- Jet grouting kit
- Top hammer kit
- 320 mm clamp & breaker
- DTH lubricator
- Double rotary kit
- EN16228 safety cage kit
- Tier 3 EDG Diesel engine
- Special Low Headroom mast
- Cylinder hoist & feed
- Foam pump & washing kit
- Wire line winch
- Led working lights
- Workin parameters monitoring & recording system
- Triplex pump 200 lt/min
- Extractor device

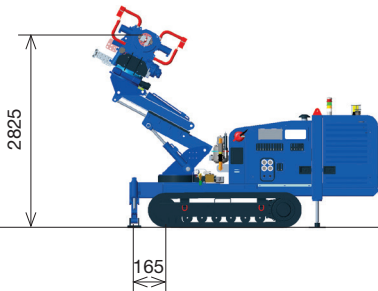
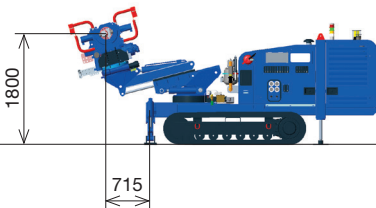
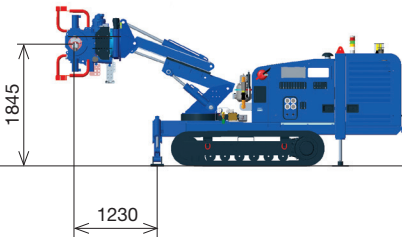
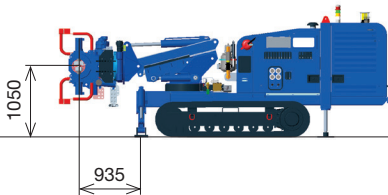
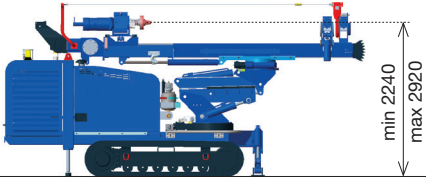
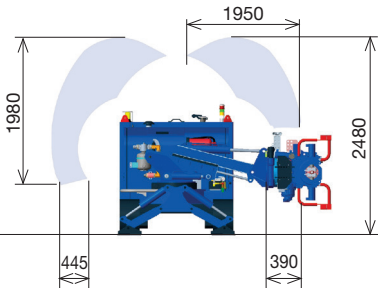
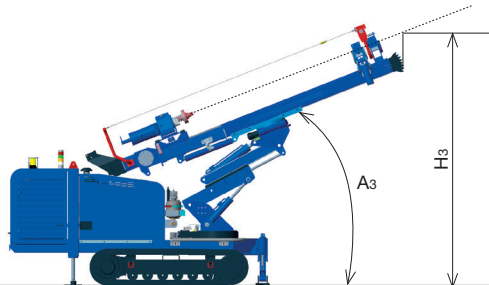
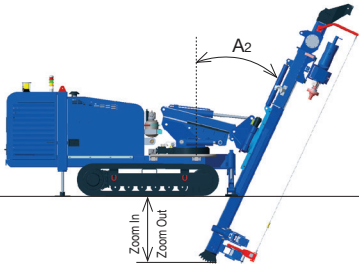
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MOVIMENTATIONS



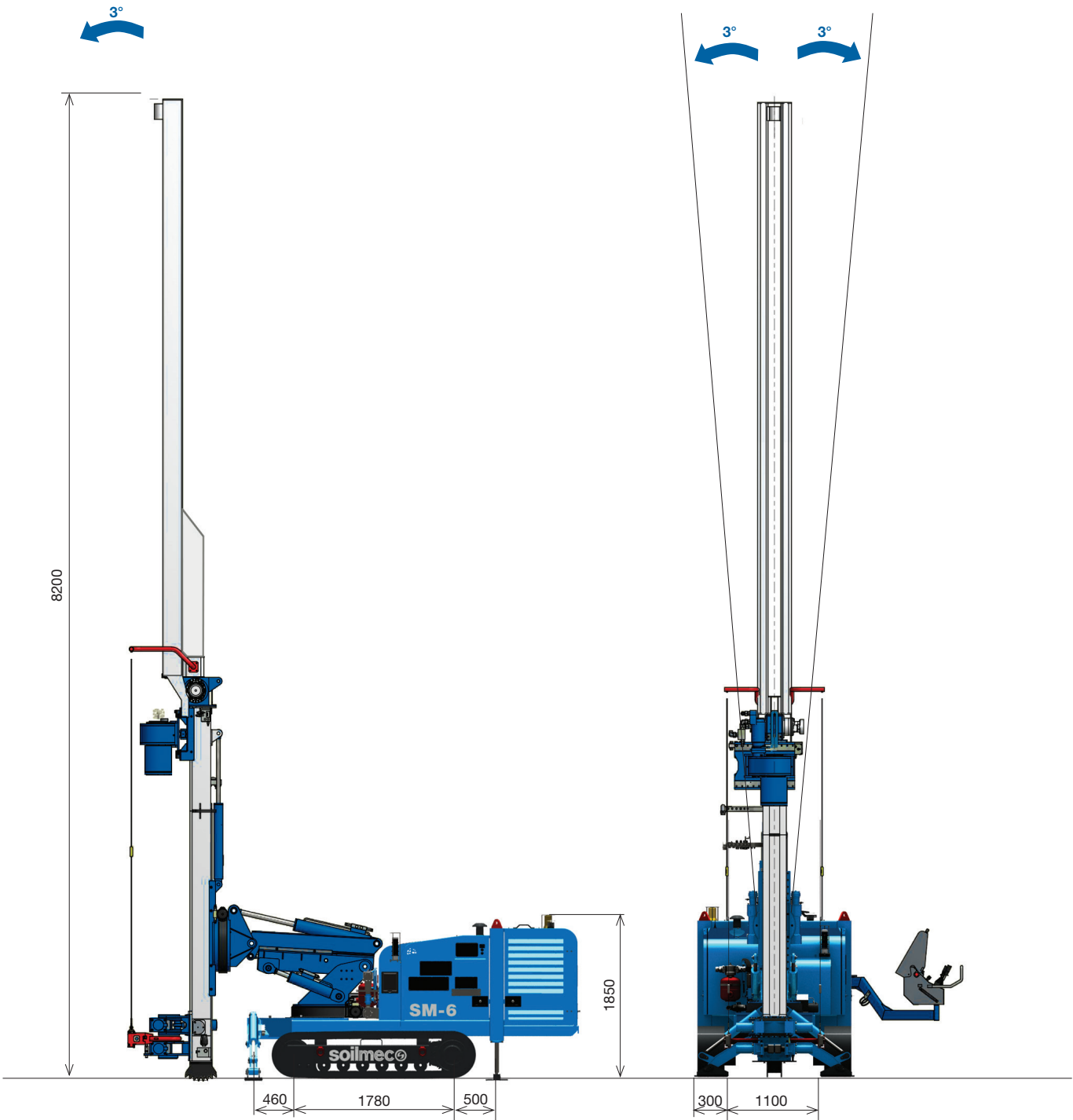
Stroke	A ₁	H1a		H1b	
1400 - Zoom In	53°	2910 mm	114.6 in	3315 mm	130.5 in
1400 - Zoom Out	48°	2780 mm	109.4 in	3145 mm	123.8 in
1900 - Zoom In	40°	2815 mm	110.8 in	3115 mm	122.6 in
1900 - Zoom Out	35°	2665 mm	104.9 in	2935 mm	115.6 in
2400 - Zoom In	40°	3130 mm	123.2 in	3430 mm	135.0 in
2400 - Zoom Out	35°	2955 mm	116.3 in	3225 mm	127.0 in
3400 - Zoom In	40°	3765 mm	148.2 in	4065 mm	160.0 in
3400 - Zoom Out	35°	3540 mm	139.4 in	3810 mm	150.0 in

Stroke	A ₂	H ₂	
1400 - Zoom In	25°	625 mm	24.6 in
1400 - Zoom Out	35°	720 mm	28.3 in
1900 - Zoom In	25°	1075 mm	42.3 in
1900 - Zoom Out	35°	1030 mm	40.6 in
2400 - Zoom In	25°	1075 mm	42.3 in
2400 - Zoom Out	35°	1030 mm	40.6 in
3400 - Zoom In	25°	1075 mm	42.3 in
3400 - Zoom Out	35°	1030 mm	40.6 in



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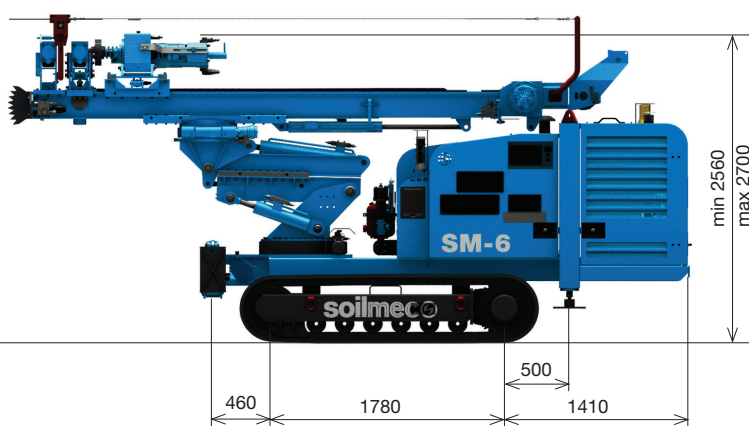
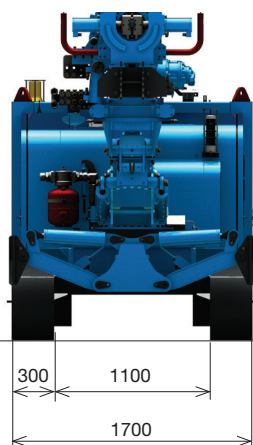
JET GROUTING



JET GROUTING VERSION		
Max rod diameter	114 mm	3.54 in
Max treatment depth in a single passage	8 m	26 ft

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TRANSPORT, DIMENSIONS AND WEIGHTS



Transport configuration	Length		Weight	
Stroke version 1400 mm	5260 mm	207.1 in	6750 kg	14881 lb
Stroke version 1900 mm	5350 mm	210.6 in	6800 kg	14991 lb
Stroke version 2400 mm	5350 mm	210.6 in	6850 kg	15102 lb
Stroke version 3400 mm	5740 mm	226.0 in	7150 kg	15763 lb

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