

Hydraulic Microdrilling Rig

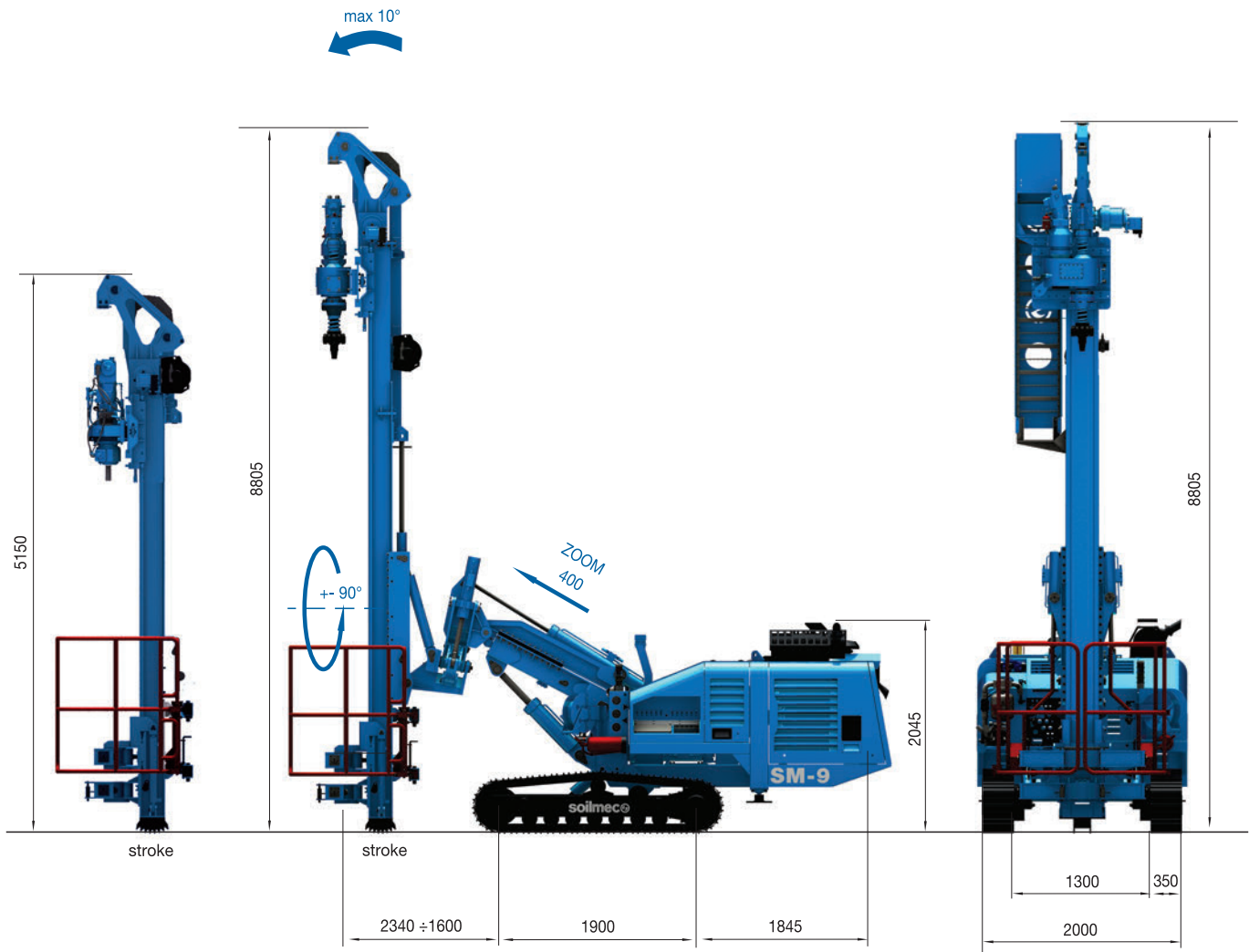
SM-9



soilmec 
Drilling and Foundation Equipment

SM-9 Hydraulic Microdrilling Rig

APPLICATIONS



Hoist & Feed system	Motoreducer	Motoreducer	Motoreducer	Motoreducer
Feed stroke	2200 mm	86.6 in	3800 mm	149.6 in
Rod length type (c/w one rotary head)	1,5 m	4.9 ft	3 m	9.8 ft
Maximum hoist pull/feed force	60 / 60 kN	13488 / 13488 lbf	60 / 60 kN	13488 / 13488 lbf
Rotary head range	HR10L	HR10L	HR13	HR13
Gear box type	Variable+ 2 Mech	Variable+2 Mech	Variable	Variable
Maximum torque	1000 daNm	7375 lbf*ft	1300 daNm	9588 lbf*ft
Maximum drilling speed	333 rpm	333 rpm	143 rpm	143 rpm
Inner passage	90 mm	3.5 in	152 mm	6.0 in

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TECHNICAL DATA SHEET

Operating weight (approx.)	9350 - 9550 kg	20613 - 21054 lb
Undercarriage		
- Track shoe width	350 mm	13.8 in
- Wheel base (centre idler to centre sprocket)	1900 mm	74.8 in
- Overall length	2424 mm	95.4 in
- Overall width (not extendable crawler)	2000 mm	78.7 in
- Travelling speed	1,80 km/h	1.12 mph
- Max climbing capacity (gradeability)	42 % (19°)	42 % (19°)
- Average ground pressure	0,071 MPa	10.3 psi
- Ground stabilizers	pivoting crawler track complete c/w n° 2 rear outriggers	<i>pivoting crawler track complete c/w n° 2 rear outriggers</i>
Power pack		
- Diesel Engine make and model	Deutz TCD 4.1 L04 4V	<i>Deutz TCD 4.1 L04 4V</i>
- Emission certification	EU Stage IIIB - EPA nonroad Tier 4i	<i>EU Stage IIIB - EPA nonroad Tier 4i</i>
- Diesel Engine power rating	105 kW @ 2000	141 HP @ 2000
- Fuel tank capacity	160 l	42 US gal
- Sound power level and sound pressure level	LwA 105 - LpA 87 dB(A)	<i>LwA 105 - LpA 87 dB(A)</i>
Hydraulic system		
- Main pumps: variable axial pumps	200 l/min	53 US gal/min
- Set pressure main pumps	30 MPa	4351 psi
- Auxiliary pumps: gear pumps	19 + 86 l/min	5.0 + 22.7 US gal/min
- Hydraulic oil tank capacity	330 l	87 US gal
Clamp & hydraulic joint breaker		
- Nominal size	60 - 320 mm	2.4 - 12.6 in
- Maximum clamping force	180 kN	40465 lbf
- Maximum breaking torque	2700 daNm	19914 lbf*ft
Service winch		
- Type	controlled descent	<i>controlled descent</i>
- 1st layer line pull	19 kN	4271 lbf
- 1st layer nominal rope speed	32 m/min	105 ft/min
- Rope diameter	10 mm	0.39 in

STANDARD EQUIPMENT

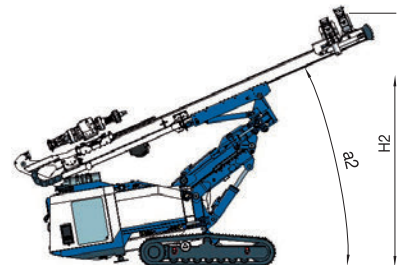
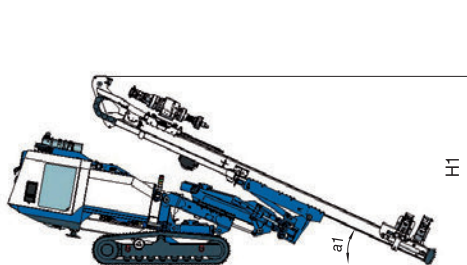
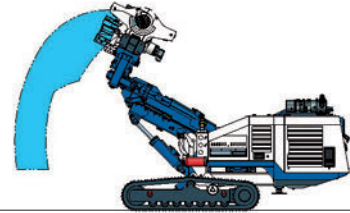
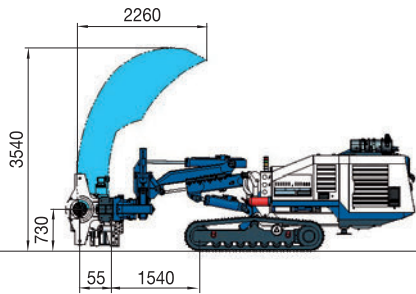
- Modular mast for 3800 mm stroke
- Clamp and breaker 60-320 mm, w/o pin remover
- Telescopic boom and sliding mast
- Full radio remote control
- Oscillating system on track
- Rotary heads up to 1063 daNm
- Rotary cradle side shifting
- Service winch
- Triplex pump for foam

OPTIONAL EQUIPMENT

- Undercarriage with rubber crawler
- Wide range of feed stroke: 2100 - 3800 mm
- Wide range of rotary heads
- Jet grouting kit
- Top hammer kit
- Radio remote control for drilling operation
- Cable remote control for tramming
- Triplex pump for mud water
- Soil investigation kit

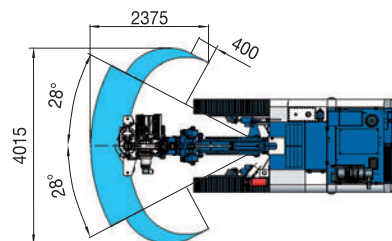
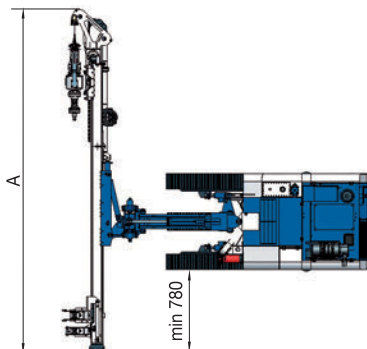
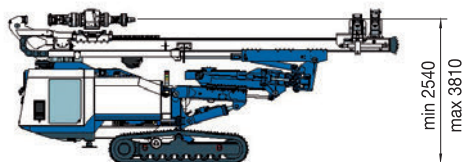
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MOVIMENTATIONS



Zoom	a1	H1
Motoreducer 2100 - ZOOM IN	28°	2910 mm
Motoreducer 2100 - ZOOM OUT	25°	2670 mm
Motoreducer 3800 - ZOOM IN	28°	3650 mm
Motoreducer 3800 - ZOOM OUT	25°	3360 mm

Zoom	a2	H2
Motoreducer 2100 - ZOOM IN	40°	4920 mm
Motoreducer 2100 - ZOOM OUT	40°	5160 mm
Motoreducer 3800 - ZOOM IN	24°	4540 mm
Motoreducer 3800 - ZOOM OUT	27°	4860 mm



Stroke	A
Motoreducer 2100	5150 mm
Motoreducer 2100	6805 mm

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JET GROUTING

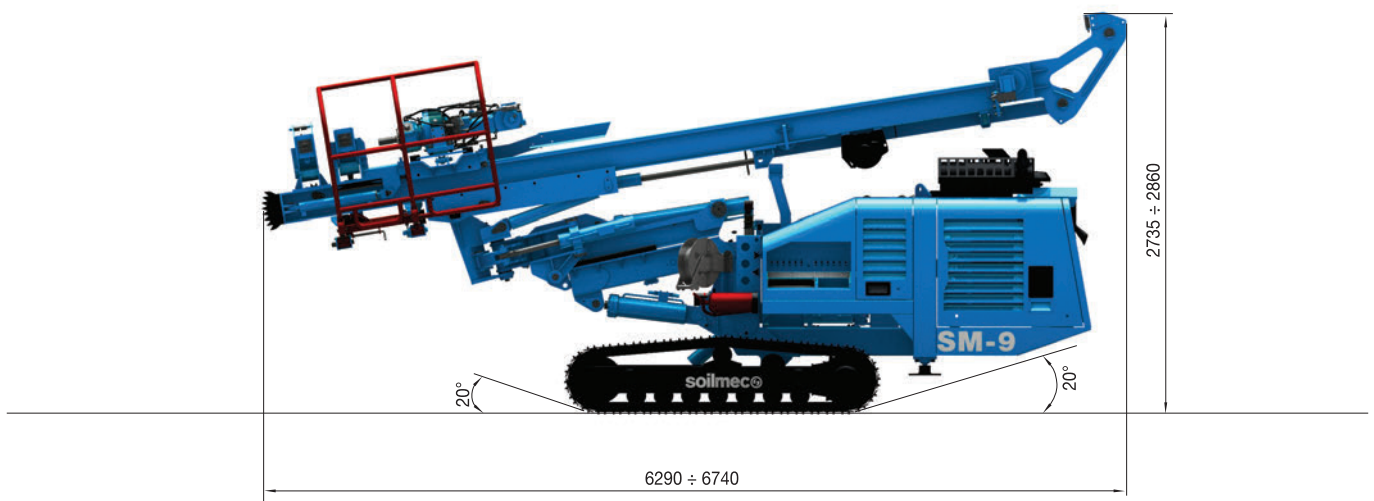
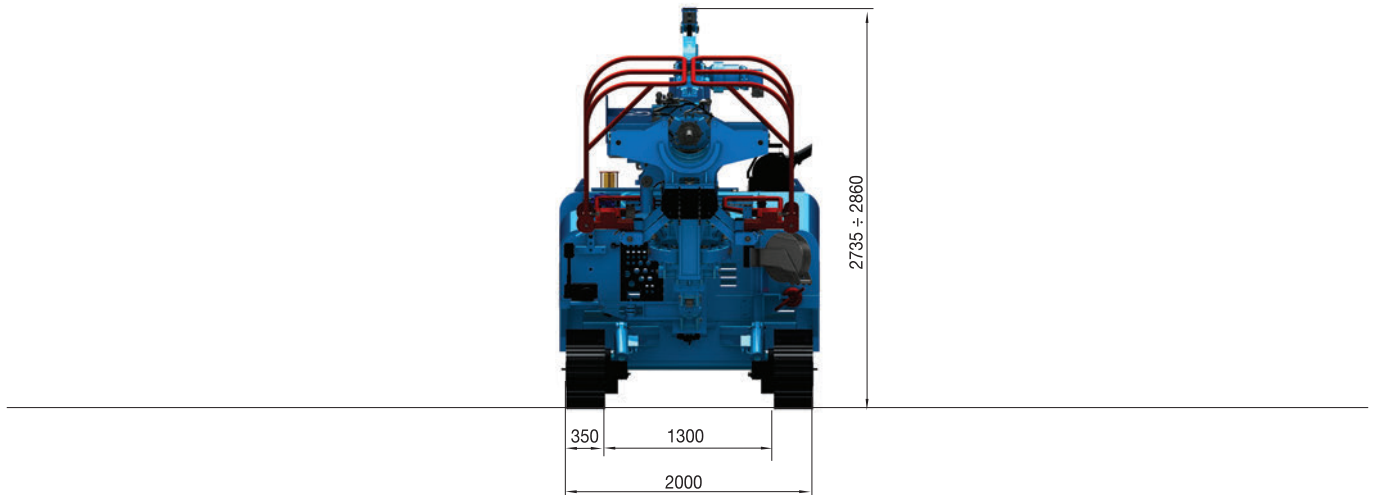


Jet Grouting Version

Rod diameter	90 mm	3.54 in
Max treatment depth in a single passage	12,0 m	39 ft

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TRANSPORT, DIMENSIONS AND WEIGHTS



Transport configuration	Length		Weight	
Stroke version 2100 mm	4750 mm	187 in	9350 kg	20613 lb
Stroke version 3800 mm	6680 mm	263 in	9550 kg	21054 lb

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