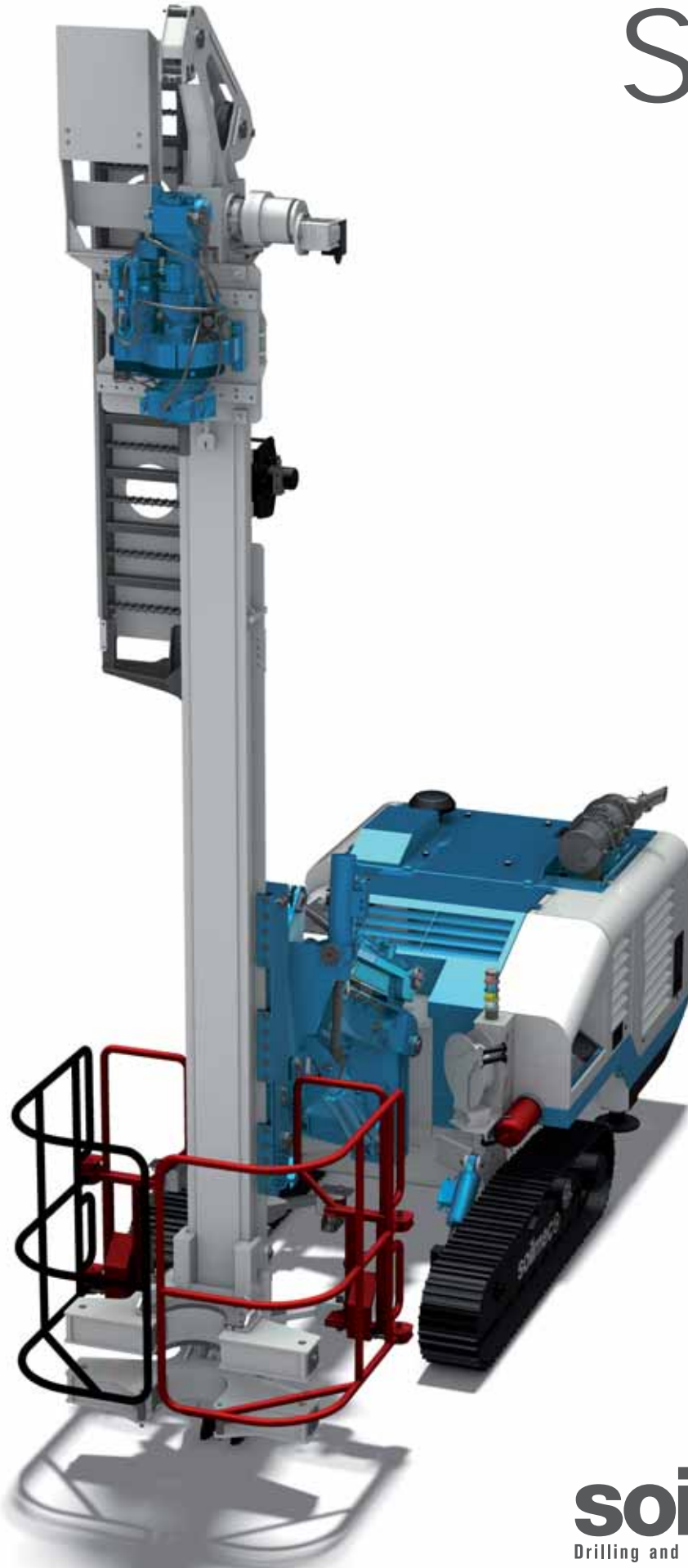


Hydraulic Microdrilling Rig

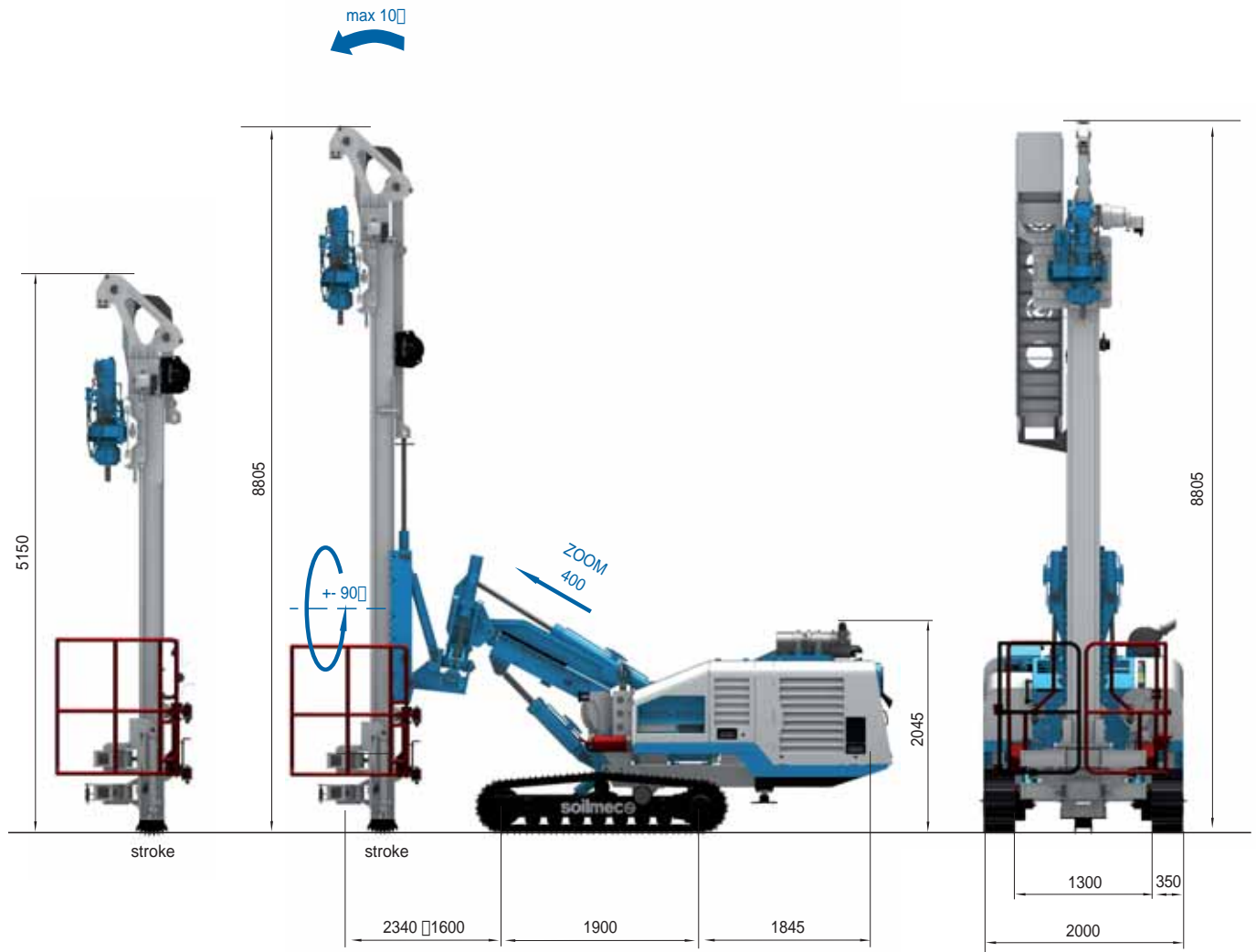
SM-9



soilmec 
Drilling and Foundation Equipment

SM-9 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 | HR9G | HR9G |
|------------------------|------------------|-----------------|-----------|-------------|-------------------|-------------------|
| Gear box type | Variable+ 2 Mech | Variable+2 Mech | Variable | Variable | 6 gear for Coring | 6 gear for Coring |
| Maximum torque | 1000 daNm | 7375 lbf*ft | 1300 daNm | 9588 lbf*ft | 820 daNm | 6048 lbf*ft |
| Maximum drilling speed | 333 rpm | 333 rpm | 143 rpm | 143 rpm | 926 rpm | 926 rpm |
| Inner passage | 90 mm | 3.5 in | 152 mm | 6.0 in | 90 mm | 3.5 in |

SM-9 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) | 1900 mm | 75 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 n² 2 rear outriggers | <i>pivoting crawler track complete c/w n² 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 |

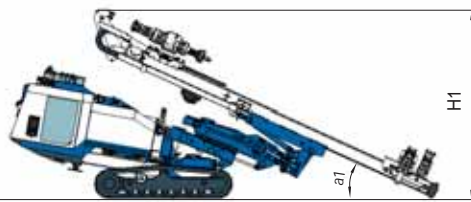
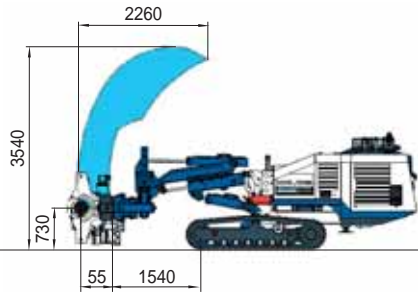
STANDARD EQUIPMENT

- 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

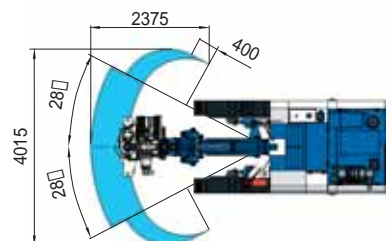
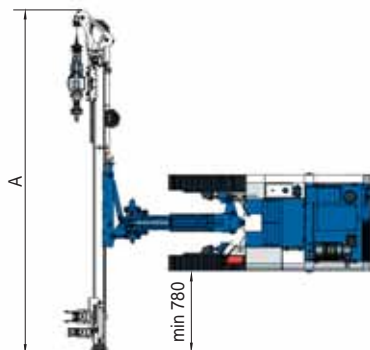
- Undercarriage with rubber crawler
- Wide range of feed stroke: 2100 - 3800 mm
- Wide range of rotary heads
- Jet grouting kit
- Top hammer kit
- Radio remote control for drilling operation
- Cable remote control for tramming
- Triplex pump for mud water
- Soil investigation kit

SM-9 Microdrilling Rig 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 |

SM-9 Microdrilling Rig JET GROUTING



Jet Grouting Version

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



| 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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