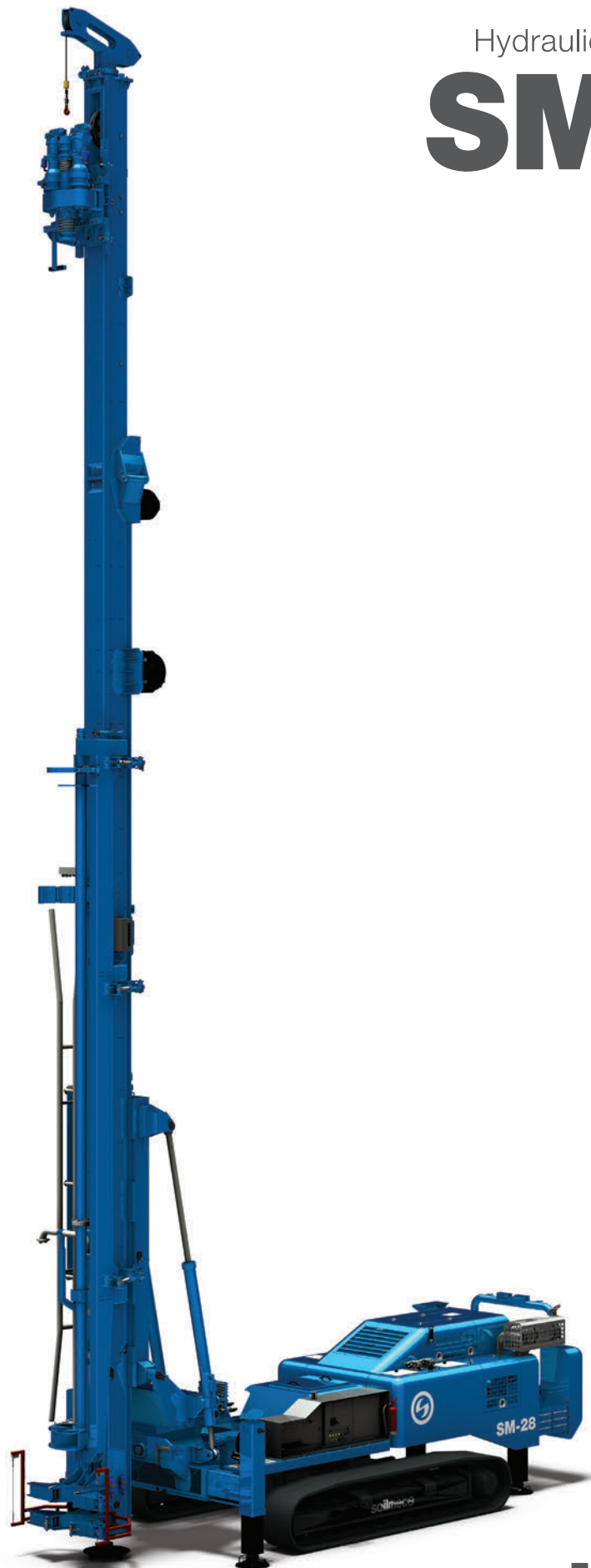


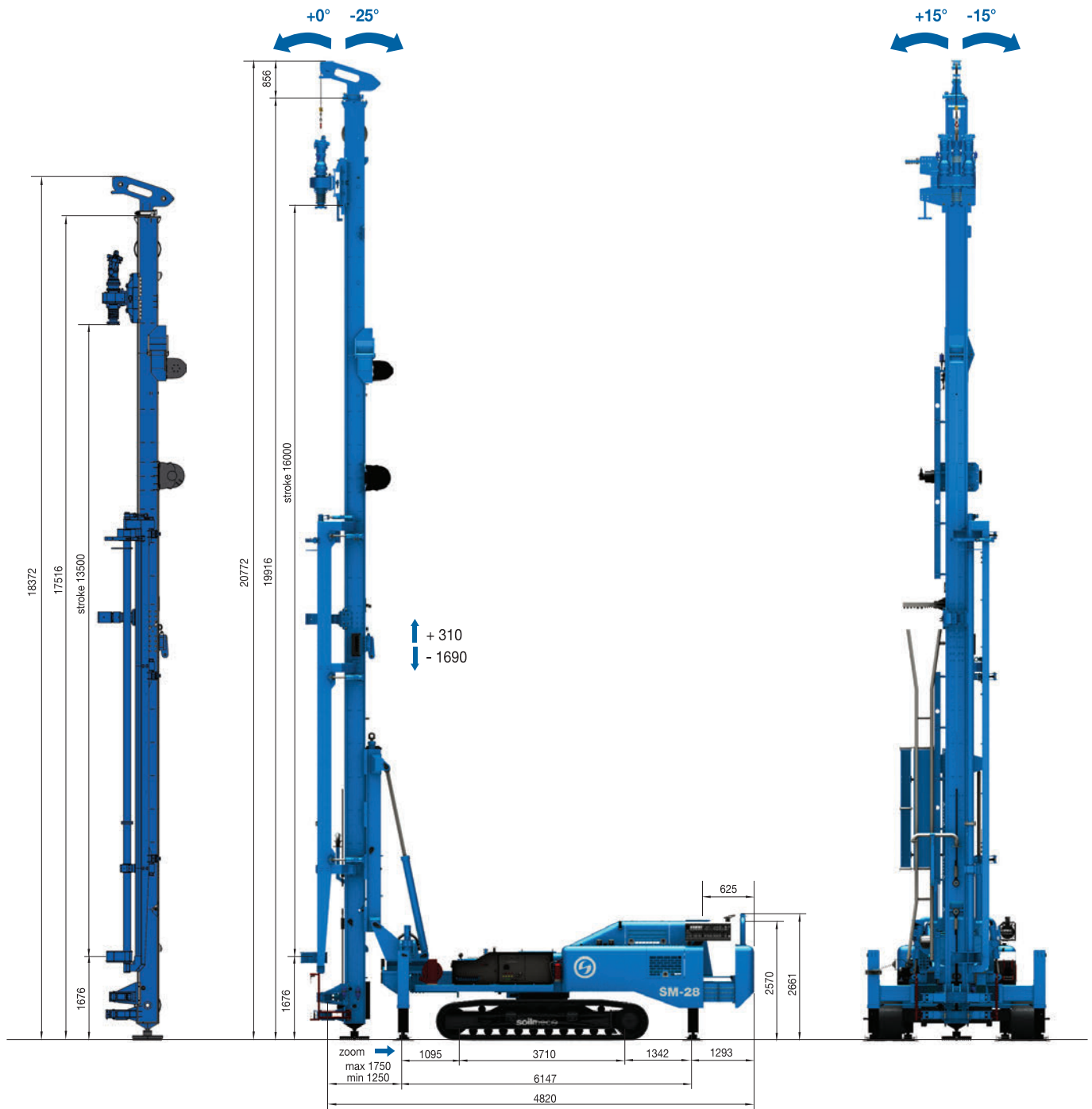
Hydraulic Microdrilling Rig

# SM-28



**soilmeco**   
Drilling and Foundation Equipment

# SM-28 APPLICATIONS



Hoist & Feed system	winch crowd	winch crowd
- Feed stroke	<b>16000 mm</b>	630 in
- Rod length type (c/w one rotary head)	<b>3 + 6 + 6 m</b>	10 + 20 + 20 ft
- Maximum hoist pull (nominal/effective)	<b>175 m</b>	38217 lbf
- Maximum hoist feed force (nominal/effective)	<b>87 kN</b>	19558 lbf
- Maximum speed (fast/low operation)	<b>28 / 12 m/min</b>	92 / 39 ft/min
Rotary head range	Standard	Standard
- Gear box type	<b>variable</b>	variable
- Maximum torque (1st gear)	<b>3300 daNm @ 49 rpm</b>	24339 lbf*ft @ 49 rpm
- Maximum drilling speed	<b>137 rpm</b>	137 rpm
- Maximum tools power (Max Power on rotary)	<b>119 kW</b>	159 HP
- Inner passage	<b>120 mm</b>	4.7 in

# SM-28 TECHNICAL DATA SHEET

<b>Operating weight (approx.)</b>	<b>40500 kg</b>	<b>89287 lb</b>
<b>Undercarriage</b>		
- Track shoe width	<b>600 mm</b>	<b>23.6 in</b>
- Wheel base (centre idler to centre sprocket)	<b>3710 mm</b>	<b>146.1 in</b>
- Overall length	<b>4511 mm</b>	<b>177.6 in</b>
- Overall width (ext/retr)	<b>3500 / 2500 mm</b>	<b>137.8 / 98.4 in</b>
- Travelling speed	<b>1,39 km/h</b>	<b>0.86 mph</b>
- Max climbing capacity (gradeability)	<b>34 % (19°)</b>	<b>34 % (19°)</b>
- Average ground pressure	<b>0,085 MPa</b>	<b>12.3 psi</b>
- Tail swing radius	<b>4050 mm</b>	<b>159.4 in</b>
- Ground stabilizers	<b>n° 2 fixed with inclined arm on front + n° 2 fixed on rear</b>	<b>n° 2 fixed with inclined arm on front + n° 2 fixed on rear</b>
<b>Diesel Engine</b>		
- Make and model	<b>CUMMINS QSB 6.7</b>	<b>CUMMINS QSB 6.7</b>
- Emission certification	<b>U.S. EPA Tier 4(i) , CARB Tier 4(i), EU Stage III B</b>	<b>U.S. EPA Tier 4(i) . CARB Tier 4(i). EU Stage III B</b>
- Aspiration	<b>turbocharged and charge air cooled</b>	<b>turbocharged and charge air cooled</b>
- Power rating	<b>194 kW @ 2200 rpm</b>	<b>260 HP @ 2200 rpm</b>
- Fuel tank capacity	<b>380 l</b>	<b>100 US gal</b>
- Sound power level and sound pressure level	<b>LwA 116 - LpA 78 dB(A)</b>	<b>LwA 116 - LpA 78 dB(A)</b>
<b>Hydraulic system</b>		
- Main pumps: variable axial pumps	<b>275 + 2x156 l/min</b>	<b>73 + 2x41 US gal/min</b>
- Set pressure main pumps	<b>28 + 2x31 Mpa</b>	<b>4061 + 2x4496 psi</b>
- Auxiliary pumps: gear pumps	<b>44 + 3x94 l/min</b>	<b>11.6 + 3x24.8 US gal/min</b>
- Hydraulic oil tank capacity	<b>700 l</b>	<b>185 US gal</b>
<b>Clamp &amp; hydraulic joint breaker</b>		
- Nominal size	<b>60 - 430 mm</b>	<b>2.4 - 16.9 in</b>
- Maximum clamping force	<b>280 kN</b>	<b>62945 lbf</b>
- Maximum breaking torque	<b>8800 daNm</b>	<b>64905 lbf*ft</b>
- Pull-up extractor clamp force	<b>260 kN</b>	<b>58450 lbf</b>
- Pull-up extractor clamp stroke	<b>550 mm</b>	<b>21.7 in</b>
<b>Service winch</b>		
- Type	<b>controlled descent</b>	<b>controlled descent</b>
- 1st layer line pull	<b>36 / 35 kN</b>	<b>8093 / 7868 lbf</b>
- 1st layer nominal rope speed	<b>27,5 m/min</b>	<b>90 ft/min</b>
- Rope diameter	<b>14 mm</b>	<b>0.55 in</b>
<b>Rod carousel</b>		
- N. of rods	<b>3</b>	<b>3</b>
- Rod diameter	<b>90 - 114 mm</b>	<b>3.5 - 4.5 in</b>
- Rod length	<b>9 m</b>	<b>29.5 ft</b>

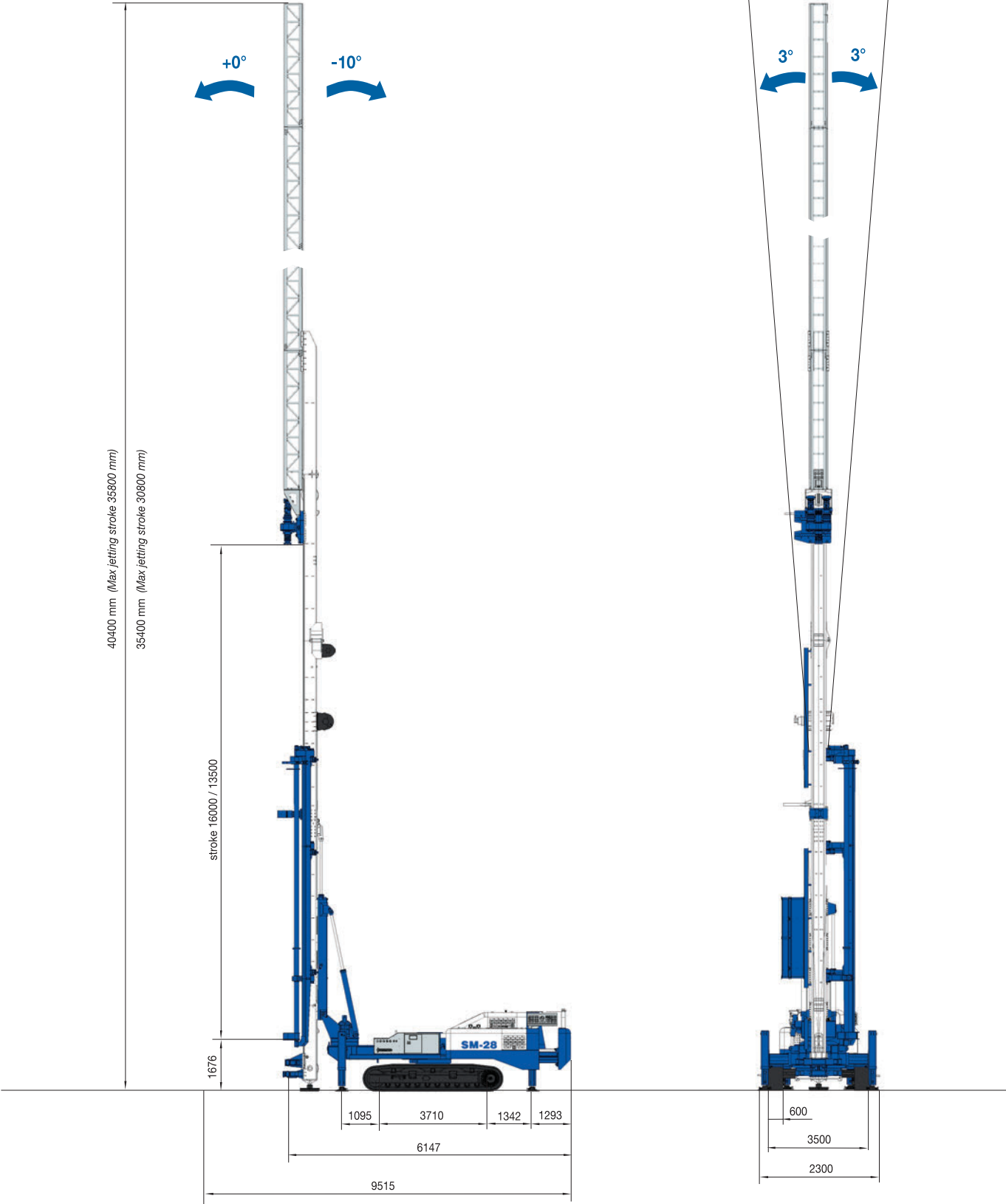
## STANDARD EQUIPMENT

- Drill mast 16000 mm stroke
- Clamp and breaker 60 - 430 mm
- Pneumatic inline DTH lubricator
- Kinematic mechanism:
  - Fixed articulation on main frame
  - Mast side tilting +/- 15°
- Rotary cradle side shifting
- Service winch
- Load Sensing hydraulic system
- Air/water system and line lubricator for DTH
- Fully radio remote control
- Safety controls on board
- Telescopic zoom on base body

## OPTIONAL EQUIPMENT

- Mast kit extension for 13000 mm stroke
- Rod carousel (3 rods)
- Jet grouting kit for treatment in single depth of 34 m (61 m with automatic loading operations)
- Wide range of rotary heads
- Top hammer kit
- Double rotary kit
- Service crane
- Clamp and breaker up to 510 mm
- Foam pump
- Water and mud pump
- CFA kit with special guide and clamp
- Mast side tilting kit for +/- 18° with 13,5 m stroke

# SM-28 JET GROUTING



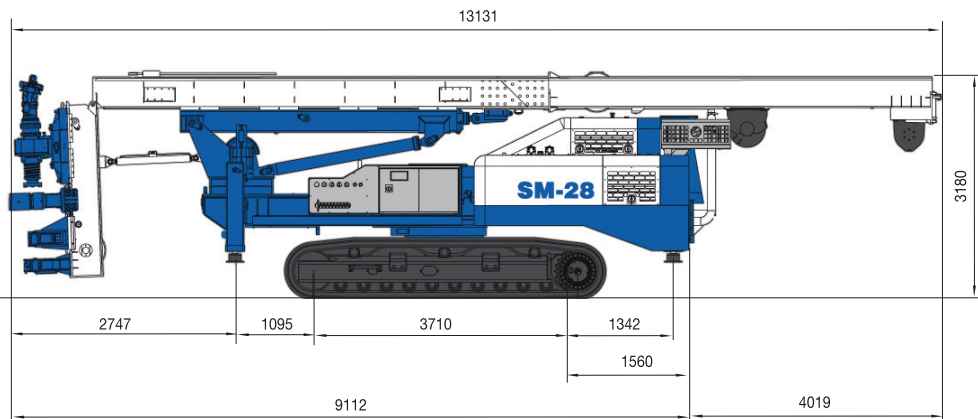
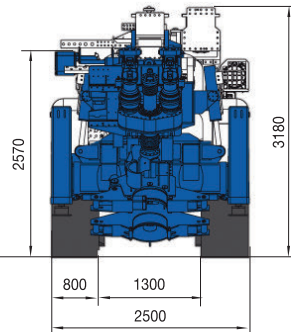
<b>Rod diameter</b>	<b>89 - 114 mm</b>	<b>3.5 - 4.5 in</b>
<b>Max treatment depth in a single passage</b>	<b>34 m</b>	<b>111.5 ft</b>
<b>Drillguide extensions</b>	<b>Telescopic</b>	<b>Telescopic</b>



# SM-28 Hydraulic Microdrilling Rig

## TRANSPORT, DIMENSIONS AND WEIGHTS

All technical data are purely indicative and subject to change without notice



Technical data sheet SM28-004 02/2016

Transport configuration		
<b>Length</b>	<b>13131 mm</b>	<b>517 in</b>
<b>Width</b>	<b>2500 mm</b>	<b>98.4 in</b>
<b>Height</b>	<b>3200 mm</b>	<b>126 in</b>
<b>Weight</b>	<b>31000 - 38000 kg</b>	<b>68343 - 83776 lb</b>

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