

Hydraulic Microdrilling Rig

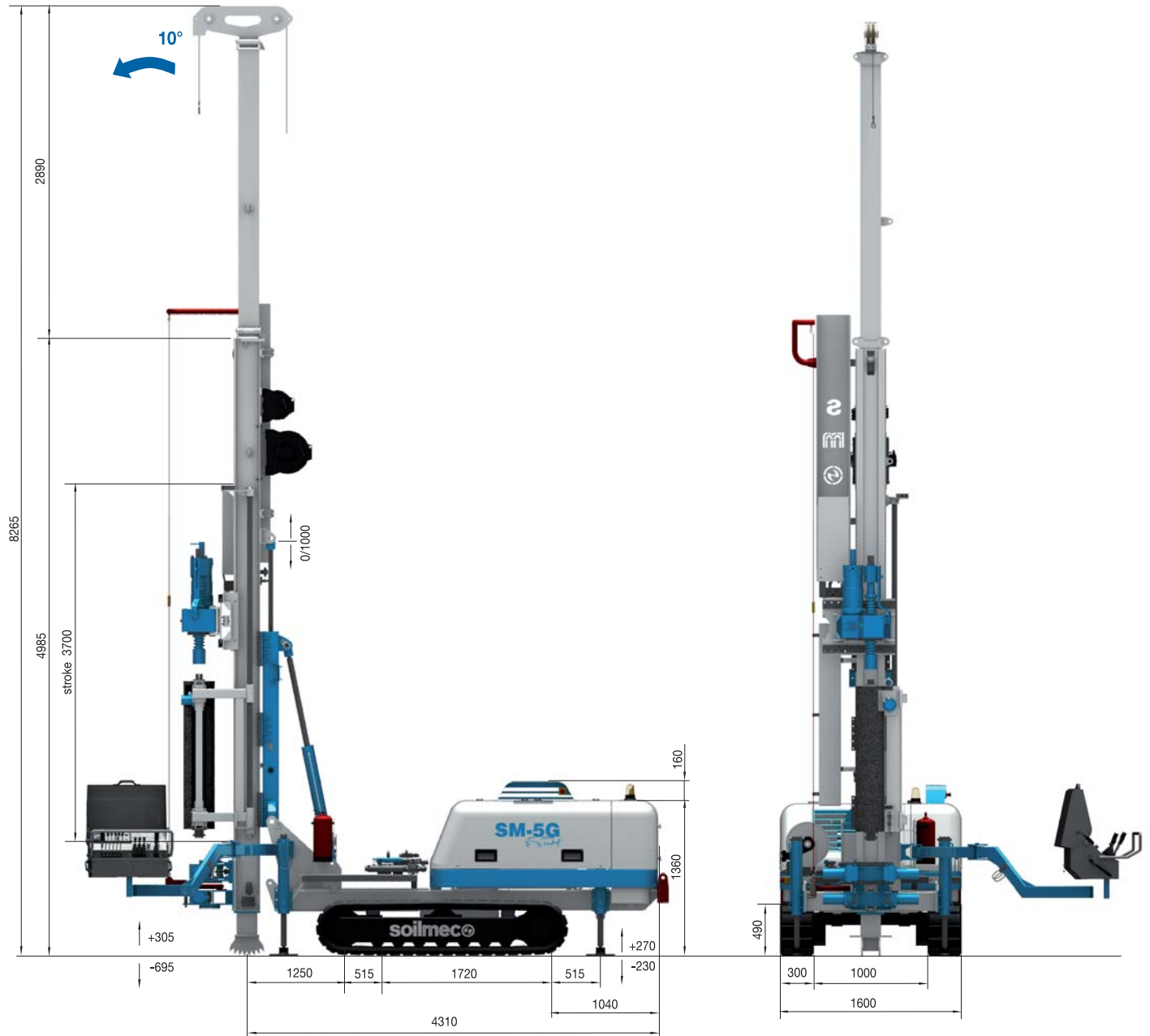
# SM-5G

by *S. Untel*



**soilmeco**  
Drilling and Foundation Equipment

# SM-5G APPLICATIONS



Hoist & Feed system	Cylinder			
- Feed stroke	<b>3700 mm</b>	145.7 in		
- Rod length type (c/w one rotary head)	<b>3 m</b>	9.8 ft		
- Max hoist pull/feed force	<b>60 / 36 kN</b>	13488 / 8093 lbf		

Rotary head range	HR7G	HR7G	HR6G	HR6G
- Gear box type	<b>6 gears</b>	6 gears	<b>4 gears</b>	4 gears
- Max torque	<b>700 daNm</b>	5163 lbf*ft	<b>600 daNm</b>	4425 lbf*ft
- Max drilling speed	<b>860 rpm</b>	860 rpm	<b>311 rpm</b>	311 rpm
- Inner passage	<b>66 mm</b>	2.6 in	<b>66 mm</b>	2.6 in

# SM-5G TECHNICAL DATA SHEET

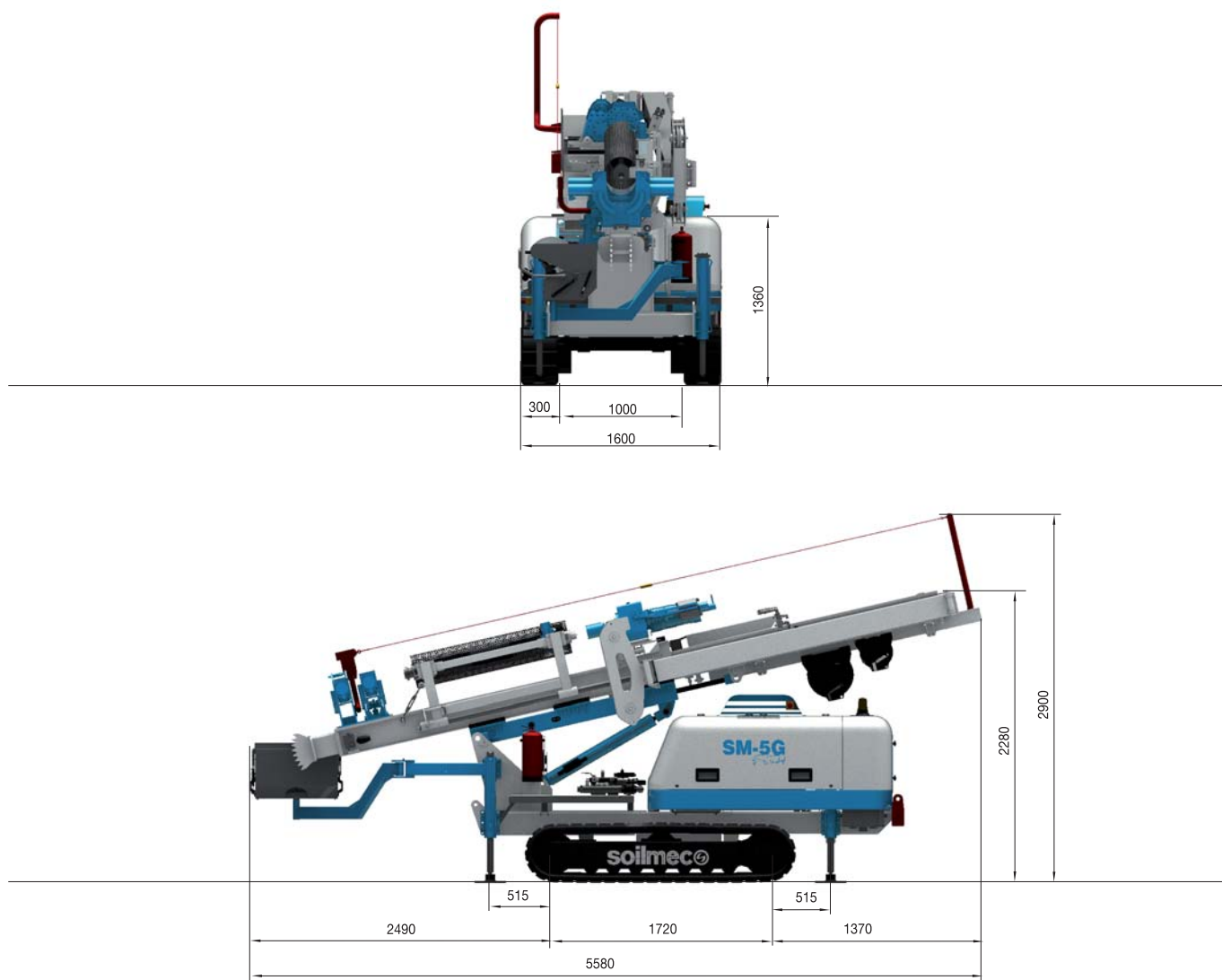
<b>Operating weight (approx.)</b>	<b>5100 kg</b>	<b>11244 lb</b>
<b>Undercarriage</b>		
- Track shoe width	<b>300 mm</b>	<b>11.8 in</b>
- Wheel base (centre idler to centre sprocket)	<b>1705 mm</b>	<b>67.1 in</b>
- Overall length	<b>2200 mm</b>	<b>86.6 in</b>
- Overall width (not extendable crawler)	<b>1600 mm</b>	<b>63 in</b>
- Travelling speed	<b>1,79 km/h</b>	<b>1.11 mph</b>
- Max climbing capacity (gradeability)	<b>34 % (19°)</b>	<b>34 % (19°)</b>
- Average ground pressure	<b>0,054 MPa</b>	<b>7.8 psi</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>Power pack</b>		
- Diesel Engine make and model	<b>DEUTZ TCD 2011 L04W tier III</b>	<b>DEUTZ TCD 2011 L04W tier III</b>
- Emission certification	<b>EU 97/68 - 2004/06 Step IIIA</b>	<b>EU 97/68 - 2004/06 Step IIIA</b>
- Diesel Engine power rating	<b>71,2 kW @ 2300 rpm</b>	<b>95 HP @ 2300 rpm</b>
- Fuel tank capacity	<b>75 l</b>	<b>20 US gal</b>
- Sound power level and sound pressure level	<b>LwA 105 - LpA 74 dB(A)</b>	<b>LwA 105 - LpA 74 dB(A)</b>
<b>Hydraulic system</b>		
- Main pumps: variable axial pumps	<b>145 l/min</b>	<b>38 US gal/min</b>
- Set pressure main pumps	<b>26 MPa</b>	<b>3771 psi</b>
- Auxiliary pumps: gear pumps	<b>78 + 37 + 32 l/min</b>	<b>20.6 + 9.8 + 8.5 US gal/min</b>
- Hydraulic oil tank capacity	<b>230 l</b>	<b>61 US gal</b>
<b>Clamp &amp; hydraulic joint breaker</b>		
- Nominal size	<b>50 - 220 mm</b>	<b>2 - 8.7 in</b>
- Maximum clamping force	<b>140 kN</b>	<b>31473 lbf</b>
- Maximum breaking torque	<b>3000 daNm</b>	<b>22127 lbf*ft</b>
<b>Service winch</b>		
- Type	<b>controlled descent</b>	<b>controlled descent</b>
- 1st layer line pull	<b>20 kN</b>	<b>4496 lbf</b>
- 1st layer nominal rope speed	<b>51 m/min</b>	<b>167 ft/min</b>
- Rope diameter	<b>10 mm</b>	<b>0.39 in</b>
<b>Rod carousel</b>		
- N. of rods	<b>3</b>	<b>3</b>
- Rod diameter	<b>114 mm</b>	<b>4.5 in</b>
- Rod length	<b>3000 mm</b>	<b>118.1 in</b>
<b>Wire line winch for geotechnical application</b>		
- Max depth for coring	<b>150 m</b>	<b>492.1 ft</b>

## STANDARD EQUIPMENT

- Heavy duty mast for 3700 mm stroke
- Clamp and breaker 50-220 mm
- Fixed kinematic mechanism
- Pneumatic inline DTH lubricator
- Hydraulic control board for drilling operations
- Cable remote control for tramming
- Rotary cradle side shifting
- Service winch
- Triplex pump for foam

## OPTIONAL EQUIPMENT

- Wire line winch on board
- Triplex pump for mud and water on board
- SPT device
- Wide range of rotary heads
- Top hammer kit



Transport configuration		
Transport width	1600 mm	63 in
Transport height	2900 mm	114.2 in
Transport length	5580 mm	220 in
Transport weight	5350 kg	11795 lb

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