

# 100 kN Light Weight Crawler LWC 100 / 100 XS



The Geomil Light Weight Crawler series with 100 kN twin ram pusher (LWC - 100) offers light and highly mobile self-propelled units, designed for CPT works in confined or difficult to access areas where fully ballasted rigs can not be deployed.

Three different design solutions, LWC-100 basic, LWC-100 high end and LWC-100 XS provide all-around as well as special purpose performance, all aimed at sustainable and maximum production efficiency.

The caterpillar propelled LWC provides either a fixed (width 120 cm) or extendable undercarriage (width from 78 cm to 116 cm). Thus, even narrow passages and doorways can be passed while a stable operation width is guaranteed.

Four hydraulic jacks guarantee for a perfect horizontal levelling of the LWC and even small height differences of the ground can be compensated.

The unique, yet well approved and appreciated anchoring solution allows for swift and easy sounding set-up. To ensure for a total reaction force of max. 100 kN up to three anchors are placed in an alignment extending the long axes of the LWC. Anchoring will be performed by a hydraulic and synchronised down-feed/rotation gear positioned at the rear of the rig.

The 100 kN pusher is front mounted (LWC-100 basic/high end) or centred (LWC-100 XS) with the cylinders parallel to the anchoring alignment.

The power-pack comes with a Hatz silent-pack Diesel engine, ensuring for a low noise level. Neither the operator nor the environment will suffer from machine noises.

All hydraulic functions for moving and levelling the rig are controlled by proportional valves with three way compensation. For the LWC-100 high end and LWC-100 XS all sections are equipped with electric valves, allowing for operation by a wireless remote control.

The LWC has been designed for a CPT operation with the Geomil electrical CPT cones and mechanical cones. Other third party CPT systems can be integrated.



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# Technical data LWC 100 series

	LWC - 100 basic	LWC - 100 high end	LWC - 100 XS
<b>Weights &amp; Dimensions</b>			
Total weight (net)	~ 2 100 kg	~ 2 300 kg	~ 1 700 kg
Total length	2 895 mm	3 020 mm	2265 mm
Total width	1 200 mm	1 200 mm	780 mm to 1 160 mm
Track width / length	250 mm / 1 550 mm	250 mm / 1 550 mm	230 mm / 1070 mm
Height (idle position)	2 045 mm	2 045 mm	2000 mm
<b>Motor (Silent Pack)</b>			
	1-Cyl. Hatz 1D81C	2-Cyl. Hatz 2L41C	1-Cyl. Hatz 1D81C
Power	9.6 kW at 3 000 RPM	20.9 kW at 2 000 RPM	9.6 kW at 3 000 RPM
Driving Speed	3 km/h	Two-speed: 3 or 6 km/h	3 km/h
<b>Hydraulics</b>			
Pump	Flow regulated 1-stage axial piston	Flow regulated 2-stage axial piston	Flow regulated 1-stage axial piston
Max. flow	84 ltr/min at 2 800 RPM	80 ltr/min at 2 000 RPM	84 ltr/min at 2 800 RPM
Operating pressure	25 000 kPa	25 000 kPa	25 000 kPa
Valves	7+1 proportional, 3-way compensated	9+1 electric proportional, 3-way compensated	7+1 electric proportional, 3-way compensated
Hydraulic tank	150 ltr, integrated return & air filter	150 ltr, integrated return & air filter	150 ltr, integrated return & air filter
Control	Manual lever	Scanreco wireless remote	Scanreco wireless remote
Levelling	4 hydr. Jacks / 500 mm	4 hydr. Jacks / 500 mm	4 hydr. Jacks / 500 mm
<b>Pusher (twin ram)</b>			
Stroke	1 175 mm	1 175 mm	1 175 mm
Max push / pull force	100 kN / 140 kN	100 kN / 140 kN	100 kN / 140 kN
Adj. sounding speed	20 mm / sec.	20 mm / sec.	20 mm / sec.
Free upward speed	125 mm / sec.	125 mm / sec.	125 mm / sec.
Free downward speed	160 mm / sec.	160 mm / sec.	160 mm / sec.
Control	Manual lever	Electronic, joystick	Manual lever
<b>Anchoring</b>			
Type	Hydr. drive gear	Hydr. drive gear	Hydr. drive gear
Torque	2 000 Nm	2 000 Nm, synchronised	2 000 Nm, synchronised
Vertical travel	975 mm	975 mm	975 mm
<b>Accessories</b>			
Tube rack	9*5 tubes on swivel support	9*5 tubes on swivel support	None (optional as trolley)
Guiding device	Guiding inserts	Snapper & 36 mm guiding tube	Snapper & 36 mm guiding tube
Vice & Beacon	Optional	Yes	Optional
PC Weather protection	Optional	Yes	Optional
DC/AC power conv.	Optional	Yes	Optional