

Developing and improving

Finnish drill-rig manufacturer Geomachine discusses its latest product innovations

The updated GM8 GT

Geomachine reached its 30-year anniversary some years ago, which coincided with the delivery of its 600th drilling machine. However, the company maintains that innovation is still going strong.

Geomachine is best known for its range of multipurpose soil-investigation rigs, but now it is branching out into more specialised areas.

The new GM65 CPT & Auger rig

NEW CPT, AUGER RIG

Cone penetration tests with pore pressure measurements, or CPT-U's, are becoming more popular in site investigations in Scandinavia.

The terrain in the Nordic region is quite demanding, often consisting of moraine, hard clay, big stones and a surplus of groundwater, among other things. So there was a need for a specially designed CPT-U rig that is also capable of strong augering action.

Accordingly, Geomachine developed the GM65 CPT & Auger rig, based on its multipurpose GM65 GT rig. The new rig was created to be more compact but also stronger, and another design criterion was to retain the off-road manoeuvring capabilities of its predecessors.

Moreover, the company wanted to make the switch between auger and CPT as safe and easy as possible. In addition, the anchoring, which is often quite time-consuming, is now a faster process. As a result, Geomachine created new solutions for the rig, some of which have been recently



and the latest hydraulic power technology.

"In spite of the more compact design, we wanted to maintain the off-road capabilities and the market's biggest ground clearance dimension of 70cm," says Geomachine's managing director Jukka Ylänen.

The eight-wheel drive with body steering makes manoeuvring easy in demanding terrain and leaves no traces behind. The GM rig's double-table system enables pre-setting for percussion drilling, standard penetration testing, coring and so forth. There are also several options in compressors and water pumps.

CAN BUS

"We don't only want the drill rigs to be updated, we also want to use the best available technology," comments Ylänen. "Based on good experiences with the first CAN bus rig in 2015, the new CAN bus controls will be introduced to the other GM rigs as well, step by step. Through the new control unit, the drilling methods can be pre-programmed, drilling becomes more productive, quality becomes higher and, above all, drilling will be safer for the drillers." ▼

patented. All CPT data transmission methods are also supported – memocone, cable and acoustic.

The first rig of this type was delivered to Poland last year.

UPDATING GM8

Geomachine's body-steering GM8 has been gaining popularity in Norway and Sweden since it was introduced in 2012. Based on this field experience, the manufacturer explains, the rig has now been updated to be more compact and powerful by using CAN bus steering controls

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Rig specs

GM65 CPT & AUGER	GM8 GT:
Double cylinder push-down/pull-out: 20t	Length: 7,000mm
Stroke: 1,300mm with 10° side tilting	Width: 2,100mm
Central line auger: 2,800Nm/100rpm	Stroke: 2,700mm
Auto anchoring by two side motors	Push/pull: 9/13t
Width; weight: 1,500mm; 2,500kg	Double table: 3,000/6,000Nm



Multitasking Geomachine

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