

GRLWEAP

Wave Equation Analysis

GRLWEAP is a one-dimensional Wave Equation Analysis program that simulates the pile response to pile driving equipment.



- Calculates driving resistance, dynamic pile stresses and estimated capacity
- Helps select appropriate hammer and driving system
- Determines pile drivability and estimates driving time



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Taking control – remotely

With the Internet of Things rapidly becoming a reality, drill rig manufacturers are increasingly moving to connected technology to provide real-time information on their machines. One such example is ComNect from Italian manufacturer Comacchio

Comacchio used Geofluid in October 2018 to launch ComNect its new remote fleet management tool for its wide range of hydraulic drill rigs. “Thanks to this system, our customers can easily view the location and running status of each of their rigs and obtain comprehensive information on the rig’s performance and productivity,” explains Flavio Durigan, sales manager at Comacchio. “The information can be shared with project managers, site managers, maintenance technicians or any other authorised personnel through the creation of password-protected profiles. User profiles and access to information can be configured according to the customers’ needs.”

The system is based on the use of sensor networks that monitor the main aspects of machine performance, including diesel engine supervision. A premium version of the ComNect system also includes the ability to view and remotely set the main drilling and grouting parameters. All information is stored on a daily basis (or multiple times a day, if requested) and is uploaded to secure cloud storage where it can be accessed from anywhere in the world via a PC or a mobile device with an internet connection. The information can also be stored locally and downloaded at a later date using a USB flash drive.

The ComNect system is available for the Comacchio GEO line soil investigation units and MC line foundation construction equipment, as well as CH piling rigs. In addition to being available on new rigs, it can be easily retrofitted on existing units from the manufacturer.

“The system offers multiple advantages,” continues Durigan, “it allows the fleet managers to make sure that the equipment is running properly and in the right location, preventing unauthorised use and theft. It can be used to monitor the progress of the drilling project and

create reports. Such information as daily working hours and fuel consumption can be used for detailed analysis of operational data so that our customers can see how productive and efficient their machines have been over a certain period of time. This can also help achieve better maintenance planning and facilitate predictive maintenance and proactive support from Comacchio’s service team, thus preventing breakdowns and reducing equipment downtime.

“ComNect is also a valuable tool we can use to help our clients in the unlikely event of a fault,” added Durigan. Comacchio service technicians can be allowed to access the rig remotely using ComNect and view the main parameters in real-time. Using sensor alerts and fault codes, they can troubleshoot the machine even before arriving at the job site. The same information can be viewed by authorised technicians from the user’s local Comacchio dealer. “This allows us and our distributors to provide a higher level of support by reducing travel expense and ensuring a prepared mechanic arrives at the site – ultimately reducing an owner’s expense and unscheduled downtime,” Durigan concludes. ♥

