Launching out into piling

Comacchio's 2015 Open House, which took place at the end of October in Riese Pio X, Italy, was attended by over 500 guests from around the world, who witnessed the unveiling of the company's CH 450 piling rig, as well as the launch of the new largediameter piling product division



Above (left to right): Emanuele Comacchio (area manager), Pasqualino Comacchio (MD), Alessandro Comacchio (project manager), Renzo Comacchio (president), Patrizio Comacchio (VP) and Piero Guardigli (sales manager)

the Italian manufacturer's president, Renzo Comacchio, who spoke to the dealers and customers about Comacchio's development and growth over the years. "The CH 450 is the first step of

a long and laborious process that will engage the company from many points of view and that will inevitably lead to transformations," he said.

"However, what I would like to emphasise on this important occasion are the things that do not change at Comacchio, namely the core values of our company: the customer focus, the dedication to our work, and the commitment to the continuous improvement of our products, from the smallest to the largest."

Alessandro Comacchio, co-ordinator of Comacchio's piling division, added: "The idea of developing our own machine for bored piles is not new to Comacchio, but it's only in this past year that the idea developed into a concrete project.

"Throughout its history of almost 30 years, Comacchio has established itself as a leader in the global segment of micro-drilling and geotechnics.

"By virtue of a natural development of our company, we decided to invest in the creation

The centre of attention was the first rig of the new piling division, the CH 450 of a piling division. This will allow us to better meet the demands of our customers operating in the foundations industry and to enter into market segments that we're not covering now."

In order to accomplish this, Comacchio has invested in the creation of a new production site in Castello di Godego, where the company was originally founded in 1986, just a few kilometres away from its present headquarters. The new plant, currently under construction, is scheduled to be completed in the first quarter of 2016.

"The aim is to create a cutting-edge production facility, equipped with the latest equipment for the design and production of drilling rigs for largediameter piles; a structure that can serve as a catalyst for research and development activities," said Alessandro Comacchio.

"The goal is to be able to

provide our clients with a full spectrum of solutions, including geotechnical and micro-drilling machines, but also drill rigs for large-diameter piles, as well as accessories and ancillaries."

Comacchio remains committed to developing new solutions for geotechnics and micro-drilling, which form the core business of the company.

This was confirmed by the selection of rigs for soil investigation, micropiles, anchors, jet grouting and consolidations on display during the second day of the Open House. The rigs on show had all been designed and built according to customer specifications.

"Many of our models come from a specific request from a customer or from the single market.

"While offering a wide range of more than 50 models, we are always open to new demands from customers and are willing to introduce options and accessories that are specifically designed to address specific needs. In fact, customised solutions are our bread and butter," the heads of Comacchio commented.

FIRST PILING RIG

At the centre of attention was the first rig of the new piling division: the CH 450 (the number 450 stands for the weight class of 45t).

The newest addition to the Comacchio range is designed for job sites that require fast operating times. The machine is self-erecting and can be transported as one piece with the kelly mounted.

Once on site, the machine can be unloaded from the truck and set up without any crane service. The lifting operation of the mast can be performed safely in just a few minutes.

The CH 450 is designed to **•**





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Comacchio's ► cover a wide range of processes that include bored piles with kelly bars, continuous flight auger (CFA), micropiles, displacement piles and soil mixing.

The machine can be supplied both in CPD version (with cylinder pull down) and WPD version (with winch pull down), and can mount kelly bars with a maximum length of 13m to 13.5m (CPD-WPD), with a variable outer diameter, including HD (heavy duty) bars and XHD (extra heavy duty) bars.

The rotary head, promising both high torque and high speed, is equipped with a computer system that controls and monitors the drilling parameters and performance, run by software that has been exclusively designed for Comacchio.

The maximum diameter in CPD is 1.5m and/or 2m, while in the WPD version the max diameter is 1.3m and/or 2m. The drilling radius goes from a minimum of 3m to a maximum of 3.8m, while the maximum depth with CPD-WPD friction kelly is 62.5m, which becomes 49.5m with a locking kelly.

The operating weight without tooling amounts to 41t in CPD and 42.5t in WPD. In the CFA version, the CH 450 can be used with augers up to 1m in diameter and 16.5m in length, which can

be increased to 22.5m with the appropriate extension. But Comacchio also offers a special CFA version that can achieve 25m depth.

MICROPILING MACHINES

Among the equipment for micro-drilling exhibited during the Open House, two highlights included the MC 22 A and the CPH 1. These are two very different products, both designed to make handling of drilling equipment on site safer and easier.

"Safety issues are always the centre of attention at Comacchio, which is investing heavily in the development of equipment-handling systems that can minimise the risk to operators. This is an issue that has gained even greater relevance with the entry into force of the new European standard EN 16228," explained Flavio Durigan, sales manager of the micro-drilling and geotechnical division of Comacchio.

The new MC 22 A, presented last spring at the IFCEE in San Antonio, Texas, US, and unveiled to the Italian public for the first time during the Open House, is another step in that direction. Based on the MC 22, the MC 22 A is equipped with a carousel for rods and casings, which allows for the handling of both single rods, for open-hole drilling, and of a combination of rods and casings for overburden drillina.

Thanks to a hydraulic gripper mounted on a track parallel to the mast and to a rotating magazine containing the equipment, the carousel can handle up to seven pairs of rods and casings with variable diameters, up to a maximum of 114mm for rods and 178mm for casings, and a maximum length of 3.5m.

The machine also comes with a radio-control system, with which the opetaor can control all machine functions from a single console, including tramming, set-up and drilling, as well as operating the carousel itself.

The development of the CPH 1, an excavator-mounted unit created specifically for the handling of the equipment, goes in the same direction. It was first introduced in April during Intermat in Paris. Developed as a stand-alone accessory, the manipulator is able to load and unload rods and casings of variable diameters (from 60mm to 200mm), up to 3m in length, either single tubes, for open-hole drilling systems, or double tubes, for overburden drilling systems.

"The advantage of this system is that it can be used with drill rigs of any size, unlike handling systems installed on the machines, and it is less subject to weight and capacity restrictions," said Durigan.

"The CPH 1 manipulator is available in two versions, with two or three clamps. The excavator at the base is designed specifically for this application, optimised to ensure maximum operator-friendliness: all the manipulator controls are integrated into the joysticks of the excavator itself.

In addition to the new equipment, Comacchio also showcased other machines from its range, including the GEO 205, MC 8, MC 12 and MC 22 and MC 15, as well as the MC 6, which is a fairly recent addition to its foundations line