



## COMACCHIO PRESENTS THE NEW CH 300



Presented for the first time in the United States at Conexpo 2020, the CH 300 is the smallest model of the Comacchio CH range of large-diameter piling rigs. It has a transport weight of less than 30 tons (64,800 pounds) with the rotary head and Kelly bar installed. The rig is fully self-erecting: once on site, it can be off loaded from the truck and set up without the need for crane with the help of automated rig-up systems. The lateral extensions of the undercarriage allow for reduced dimensions during transport and ensure, when opened, a good stability of the machine during operation. This allows you to significantly facilitate transport operations and to reduce the high mobilization costs usually associated with this kind of equipment.

Despite the lightweight design, the CH 300 offers a high torque output (up to 97,300 pounds-foot nominal

torque), allowing to undertake drilling tasks that would normally require the use of larger and heavier equipment. The CH 300 can be configured both for uncased bored piles (excavated by dry method or stabilized by fluid overpressure) and cased piles (where the casing installation is carried out by rotary drive), up to a maximum depth of 159 feet. The maximum pile diameter is 4 feet 3 inches. It can be increased to 4 feet 11 inches when the tool is used under the mast. Throughout the drilling phases, the CH 300 only operates with the first layer of its main winch, reducing both wear and loss of pulling capacity.

The CH 300 is designed to be robust and reliable, thanks to the use of high-strength steels that allow to reduce weight without sacrificing performance and reliability onsite.

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The design of the CH 300 incorporates a number of features aimed at enhancing efficiency and cost-effectiveness: this unit is the first one of the CH range equipped with an innovative HPE (High Power Efficiency) system. This system allows you to efficiently control the power provided by the pumps by eliminating the pressure losses that normally occur on a “conventional” hydraulic system. By eliminating energy dissipation, fuel consumption is significantly reduced, with an estimated saving of around eight gallons per day.

With a view to improving energy efficiency and environmental sustainability, the engine cooling system has also been optimized by Comacchio to control the heat dissipation according to the actual operating requirements of the machine, which translates into reduced emissions, less fuel consumption and lower noise levels. To meet the new emission regulations and particle number (PN) emission limits, the CH 300 features Stage V technology (EPA Tier 4 Final) including DPF, SCR and urea dosing combined in a Single Module™ after-treatment system that takes up less space and weighs less than prior systems.

Great attention has been paid to the operator's comfort and safety. The CH 300 stands out for its ergonomic design and high level of safety: the roomy cabin, fully-glazed and equipped with a sliding door. The workplace is adjustable and uses levers and capacitive manipulators, as well as a touch-screen, 7-inch, color display connected to the CCS system: a user-friendly control software designed entirely by Comacchio, which controls the drilling parameters and allows for the complete management of the machine, including diagnosis of any error. This system can be integrated with the ComNect remote monitoring system, recently introduced by Comacchio to allow remote fleet management. The ComNect system provides the client real-time complete information on the rig status and its performance. It can be easily accessed from authorized PC or mobile devices, and can be successfully used for analyses of operational data, production reports and predictive maintenance.

Conexpo was also the occasion to introduce the new capabilities of the Comacchio CH 450. The multipurpose design of this well established piling rig by Comacchio has been enhanced to adapt to a larger range of drilling technologies, including micropile rotary drilling with single head and double head system. The CH 450 MP (where MP stands for Micropiles) presented at Conexpo featured a double-head system developed by Comacchio offering up to 78,200-78,300 pound-foot torque on the lower rotary head and 17,700-18,200 pound-foot on the upper drill head, allowing for high penetration rates and improved productivity even in the most difficult ground conditions. The clamping arrangement allows for the installation of micropiles that range from four and three-quarter inches to 24 and a half inch diameter. The use of the Comacchio patented casing extractor offers additional extraction force to speed up casing removal. For easier and safe operation the rig is equipped with the Comacchio radio control system for tramming and drilling functions. Due to the flexible design the Comacchio CH 450 can adapt to all most common drilling methods including Kelly drilling, continuous flight auger drilling, full displacement drilling and soil mixing, as well as single head/double head micropile rotary and rotary-percussive drilling. ▀



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