

## Comacchio Presents the New CH 650



Presented during CONEXPO-CON/AGG 2017 in Las Vegas, the CH 650 is the latest addition to the Comacchio line-up of piling rigs. The launch of this machine follows the introduction in late 2015 of the CH 450, the first machine designed by the Italian manufacturer for the large diameter market.

The CH 650 is a multipurpose drilling rig mounted on a dedicated excavator carrier with an operating weight of 70 metric tons (154,000 lbs.). The rig is self-erecting and can be transported with minimal machine disassembly, down to 53 tons (116,800 lbs.) for mobilization, thus allowing for easy and fast rig-up. The unique design of the CH 650 adapts to a wide range of drilling technologies including Kelly drilling, continuous flight auger work (CFA piles), displacement piles and soil mixing. The machine can be offered in CPD (cylinder pull down) and WPD (winch pull down) versions and can also be equipped with different Kelly bars reaching a maximum pile depth of 69 m (227'). The innovative rotary quill adopted by Comacchio allows for the use of Kelly bars of various diameters, including HD (heavy duty) bars and XHD (extra heavy duty) bars, with minor changes on the rotary head. This robust rotary head, designed entirely by Comacchio, offers 262 kNm (193,240 ft.-lbs.) nominal torque and is connected to the Comacchio Controlling System (CCS), a software developed exclusively by Comacchio, that allows for the control and monitoring of the drilling parameters and performance via a 12" touch screen.

To meet the various needs of the client, the machine can be ordered in different configurations and combinations. The CH 650 on display in

Las Vegas had a WPD configuration, featuring a 16000 mm stroke mast and 330 kN pull up/down force. In this configuration. This machine can be used for the construction of cased (up to 2000 mm / 79" diameter) or uncased (up to 2500 mm / 98" diameter) bored piles up to 69 m (227') deep. The WPD version of the machine can also be supplied with a CFA conversion kit. In this arrangement, the machine can be used for CFA piles with a maximum diameter of 1000 mm (40") up to 22.5 m (74') deep, using a 17.5 m (57.5') long auger string and 7 m (23') long auger extension.

The CPD configuration of the machine features 5600 mm (18'4") feed stroke and offers 280 kN (63,000 lbs) maximum extraction force and 200 kN (45,000 lbs) maximum pull down force. It can be used for the installation of large drilled shafts (up to 2500 mm / 98") up to 62 m (203'5") deep.

The machine highlighted at CONEXPO featured a Caterpillar C 9.3 engine delivering 240 kW / 321 HP power, while complying with the latest EU Stage IV / US EPA Tier 4 Final emission standards. The extendable undercarriage (3000 to 4270 mm/9' 10" to 14') allows for reduced dimensions during transport and ensures, when opened, enhanced stability of the machine during operation.

The CH 650 is a noteworthy example of Italian design. For instance, the engine and hydraulics compartment hatches are designed not only to achieve easy access for inspection and maintenance, but also to optimize the air flow and reduce the noise levels during operation. The design of the cabin, down to the finest detail, is another case in point. With its 1040 mm (3' 5") width, the cabin is very roomy and ergonomically designed, fully glazed, featuring a sliding door and panorama roof. Its internal workspace is adjustable and uses levers and capacitive manipulators, as well as a large touch screen 12" color display connected to the CCS system. Standard equipment also includes a set of cameras to aid in the overseeing of drilling and the winch operations, a radio / CD player with Bluetooth system and charging device for phone batteries. Equipped with the protection devices required by TOPS & FOPS-1 standards, the soundproof cabin ensures a high level of safety, as well as user comfort.



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