

The Italian protagonist

A home game for two major Italian companies specialising in the field of drilling: Massenza Drilling Rigs and Bongiovanni Perforazioni

“The hard work was carried out by a Massenza Mi12 drilling rig”

Massenza Drilling Rigs, located in the province of Parma, is a leader in the drilling sector not just in Europe but also around the world. It has been designing and producing drilling rigs since

1921, with constant and continuous research to improve the efficiency, competitiveness and quality of its production.

Based in San Giovanni in Persiceto (BO), Bongiovanni Perforazioni has been operating

in the artesian well drilling sector for over 80 years. Thanks to its experience over the years, its passion for this type of work, and its reliable and qualified staff, this company uses the most modern equipment to operate with maximum efficiency and it offers the best service while also protecting underground water resources.

The Bongiovanni Perforazioni team has just completed work on a site for the construction of a water well about 500m deep for the Yoga plant in Massa Lombarda, in the province of Ravenna (Emilia Romagna -northern Italy). This opportunity has been a test on land very close to home: a test passed thanks to the great collaboration that has long linked Bongiovanni Perforazioni and Massenza.

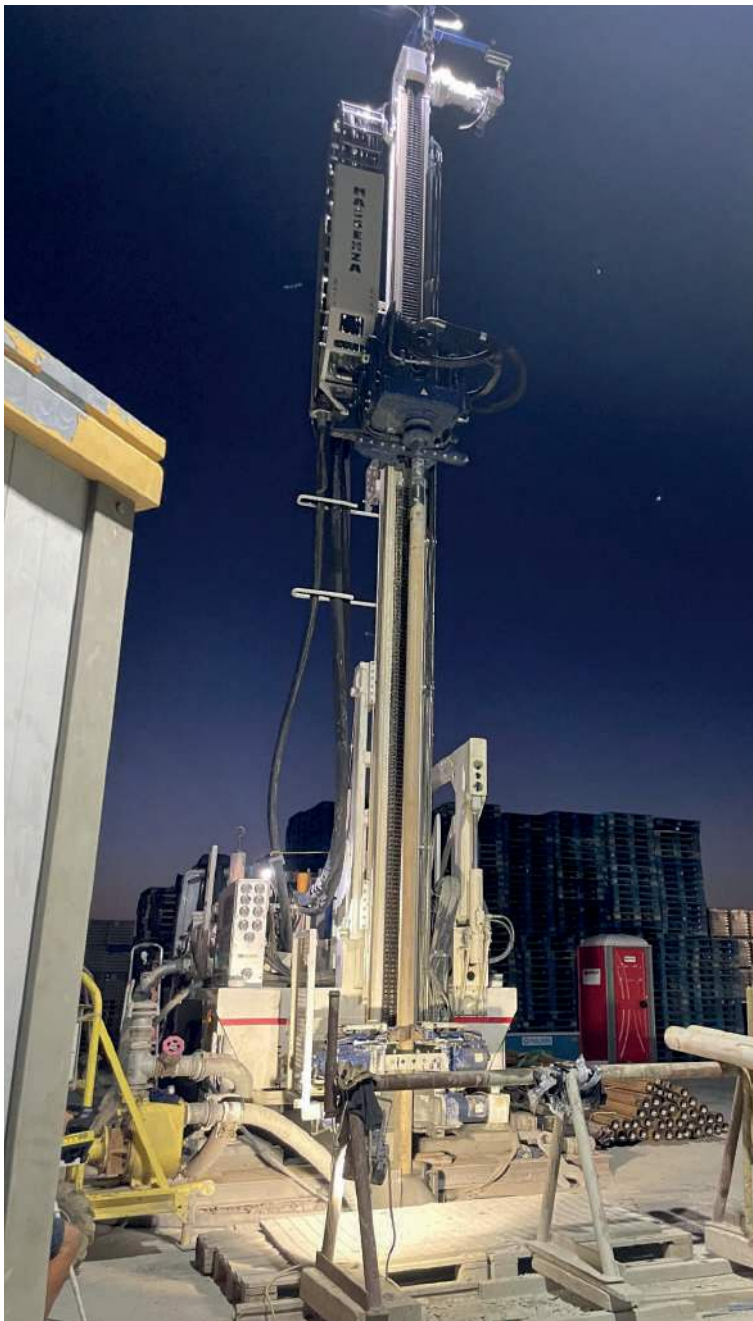
The hard work was carried out by a Massenza Mi12 drilling rig, with the objective of creating a well 480m deep, with a final flow rate of 150cu.m per hour.

VERSATILITY

The Mi12 drilling machine is very versatile, used for various applications it can operate with all major drilling systems. To use it on this new site, it was truck-mounted and built with an increased hydraulic circuit for the rotary head and has a mud pump driven by an independent hydraulic pump. It is equipped with a remote control for total control of the drill and two rechargeable batteries. There is also a protection cage for the user's safety.

The site operators drilled the first 240m section with direct mud circulation, using a 500mm diameter tricone.

This first section was then lined with 355mm diameter SS pipe and cemented down to even ground. At such a depth, the ground becomes 'hard' and this



Bongiovanni Perforazioni used a Massenza Mi12 drilling rig for the construction of a 500m deep water well for the Yoga plant in Massa Lombarda, in the province of Ravenna (Emilia Romagna - northern Italy)

is why, to reach a depth of 485m, the drilling action was continued with a chisel, specially enlarged by the drilling company, to a diameter of 338mm.

The end of the well is stainless steel with a diameter of 168mm and a thickness of 6mm. During the completion of the well, it was cemented from 230 to 245m to close the end pipe from the initial casing.

During the entire drilling phase, a mud treatment system was used so that the fluid was always clean and of the appropriate viscosity given the importance of the site and the type of soil.

FINISHING TOUCHES

To finish the job, the shaft was cleaned by airlift. In all, the site lasted a month, during which every detail and component made a difference in terms of speed, efficiency and quality of the result.

The drilling machine used for this jobsite was a Massenza Mi12 mounted on a three-axle Astra truck, whose PTO is used to drive the rig. This allowed Massenza to design a drilling machine that exactly met Bongiovanni's requirements. In fact, all the components needed on the site were on board the machine, thus ensuring operational functionality and logistical efficiency.

This Mi12, set up to work with direct circulation both with mud and air, represents truly remarkable performance for a rig of this size; a 6m mast with a 22t capacity, a 15t pulling capacity, and a double vice with a 410mm passage, but equipped with a system for lateral translation that allows the passage to be increased to 600mm.

It is equipped with a radio control for total control of the drill, which is positioned on a convenient tripod. This allowed the driller to be positioned in the area of best visibility and shelter from the heat of the sun in July when the construction took place. We all remember the high temperatures of this year's summer months, and being able



to control the drill remotely was really a relief for the workers.

ROD LOADER

A special mention goes to the automatic drill rod loader with boom, mounted on-board the machine and complete with a rod box that allows 198m of rods to be transported directly with the drill. This system makes changing rods extremely simple, fast and safe.

Once the rods are fitted on board, the tilting system of the rotary head allows work to continue effortlessly, simply by placing the additional rods on two supports in front of the well.

But that is not all. Each Massenza machine is highly customisable; in particular, the Mi12 used for this job featured a complete lighting system.

No component of the machine was left to chance and the Massenza technical team, therefore, opted for a hydraulically driven device by means of a gear motor and chain with high pull and maximum thrust of 150kN (15 tonnes). The system is equipped with a device that increases the ascent and descent speed, decreasing drilling times and increasing productivity.

Finally, one last technical mention for the Massenza Mi12 drilling rig is the onboard air compressor for drilling with a capacity of 5000L/min.

Massenza Drilling Rigs and Bongiovanni Perforazioni are two Italian experts in the field of drilling; in particular, Massenza has been manufacturing its own rigs for over 100 years and markets them internationally.

Being chosen and being able to serve customers in their own territory was, therefore, a source of pride for the two companies, who personally supervised the construction site and agreements with the final customer. ♥

The Mi12, set up to work with direct circulation both with mud and air, represents truly remarkable performance for a rig of this size



On this Mi12, the Massenza technical team used a hydraulically driven device by means of a gear motor and chain with high pull and maximum thrust of 150kN