

Guard-rail Pile Driver

Keeping the rhythm of large-scale works

By Giovanni Di Michele

One blade per minute: this is the time required for guard-rail post by the “Blade Mover”, the pile driver designed and manufactured in Bologna by Orteco.

This highly automated machine (only one operator moves machine with a remote control and two workers are in charge of barrier handling supervision and bolting) permits to speed up guardrail installation and guarantees constant performance and site quality improvement.

Born out of the “simplicity” of the Italian technical school –intended as rare and valuable capacity to identify and develop the best solutions to facilitate site works- this machine represents the world’s best example of this specific technology. This automated machine drives one post per minute with utmost safety, efficiency and constant performance to the joy of operators, companies and managers shivering at the prospect of impossible time schedules. Blade Runner science fiction? No. Simply Italian technological school imposed on international markets that, with tricolour Blade Mover and pile driving machines designed to solve time-saving problems, competes and wins in Italy and abroad.

MACHINE AT WORK

Here is this fast, safe and highly productive machine at work, born in the technical forge of Orteco, company lead by Sergio Tassinari having its registered office in Anzola nell’Emilia, only 10km off Bologna. This company is specialized in the design, construction and utilization of pile driving equipment, primary technology used for the installation of road safety barriers.

With a strong presence on foreign markets (turnover abroad represents nearly 80% of total turnover) the company takes centre-stage again with the top supply for an extremely important Italian Public work as it has been the Mestre bypass.

The Orteco guardrail pile driver –explains Mr. Sergio Tassinari- derived from the need to reduce the fatigue of workers dealing with blade lifting, positioning and bolting. In fact, the frequent misalignment of post systems requires the application of significant force during the installation of said heavy elements (approximately 70kg each). Using Orteco guardrail pile driver “the work is quite another story”. Operation requires calibration of the arm equipped with an intelligent magnet (programmed not to “attract” more than 4mm (one blade) at a time) that picks up and places blade on two separately-operated positioning devices.

Then, the blade is positioned and pushed against piles until correctly installed. The two operators who follow the operation will then proceed to bolt blades with a screwdriver. The whole installation procedure is guided, under completely safe conditions, by the third operator with a remote control, also used for loading blades on motor vehicles. The third operator with his “direction” evaluates possible variables such as visibility and obstacles and guarantees maximum operation safety. Machine performance can be easily demonstrated with a quick calculation: the Orteco guardrail pile driver has installed 25 blades in only 30 minutes and may easily reach up to 30 blades, that means one blade per minute. As Mr. Tassinari explains, “the blades installed were 4 metres long, however, longer blades may also be handled”.

Last but not least reduced machine dimensions allow the loading on the same truck along with a pile driver.