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UNDERGROUND

September 2022

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Soilmec

A completely revamped exhibition format

At Bauma 2022 the Company from Cesena will present a completely renewed display layout, focusing on customers and their needs

by Ettore Zanatta



Since its founding in 1969, Soilmec has always focused on developing sound engineering solutions for the foundation world by building product lines designed to improve quality, safety, productivity and profitability on the construction site. In this edition of Bauma, the Company has decided to present itself with a completely revamped exhibition format by putting the customer and his needs at the center.

Large diameter drilling rigs

Based on the experience and success of the first generation, the new SR machines of the Blue Tech line have been designed to improve their productivity and operational flexibility to an ever-greater extent, reducing operating costs and emissions as well as dedicated care on comfort, ergonomics and safety of operator and staff on site. The design of the Blue Tech Lines is based on the optimization of power transmission

and on the minimization of energy dissipation. Special focus has been placed on the main parts of the machine normally involved during the work cycle. The range will be represented at the fair by the most successful models for medium-sized machines, including the SR-65, and the new SR-125 platform, which was previewed at Bauma in its Blue Tech guise. The SR-65 will be configured in the LDP version, appreciated especially for its

performance in segmental casing piles, equipped with segmental mast and LHR mast. The choice of this configuration is to highlight its multifunctionality and ease of conversion not only between different technologies but even between different solutions within the same technology. The SR-65 Blue Tech in LDP version is the maximum expression of its dynamic and aggressive character. In fact, the machine was built with a compact design that boasts high mechanical performance that is agile on site and transportable complete with Kelly bar. The SR-125 has been updated to the Blue Tech version which includes a redesigned operator cab, new hydraulic and mechanical systems improved for greater efficiency. The machine has improved characteristics compared to the previous model, HIT, mainly in terms of the performance of the rotary head, with an increased torque value and in the main winch thanks to the adoption of a closed circuit. The machine will be exhibited in CAP/CSP, a technology developed by Soilmec to build diaphragms of piles where the size of the construction site did not allow traditional methods.

Hydromill

The SC-135 Tiger is Soilmec's flagship. The Hydromill the way it should be: designed to be as productive as the situation demands, unfailingly reliable and able to minimize downtime and maintenance costs. The SC-135 Tiger is equipped with a Caterpillar C27 engine capable of delivering the 708kW power required to work in demanding conditions in terms of depth and panel size. The power unit offers a complete package of solutions aimed at reducing consumption and pollution. The "start & slow" system, the automatic and independent control of the radiator fans and the optimized air flows inside the machine allow the customer to work in the most extreme temperature conditions and with severe work cycles. The excellent reliability of the SC-135 is ensured by the double hydraulic system featuring lines dedicated to the excavation module and the base machine, high-pressure filters for each return line, and an accurate drainage unit with dedicated tank. This over 200 t machine was designed for modular assembly, with a single load transport weight of 45 t. The Bauma 2022 version of the SC-135 Tiger is

equipped with the new Soilmec SH-35 excavation module. With an operating weight of between 30 and 38 tons, the SH-35 is assembled on a frame that allows for a wide range of panel thicknesses, from 650 mm to 1500 mm. To ensure a precise verticality and allow correction of any deviation there are 12 instrumented flaps. A new mud pump, hydraulic compensators with improved flow rate and new hydraulic fittings for connecting the motors are some of the developments installed on the equipment.

Micro-drilling rigs

The Soilmec line of micropile machines will be represented at Bauma 2022 by two SM-22 and the new electric machine developed with kinematics capable of guaranteeing an extreme variety of angles and positions in different construction site conditions and with different drilling methods. The Cummins B6.7 engine, available in Stage V version, can deliver the necessary power to offer the correct support for various applications. The machine is equipped with openable hydraulic cages, ROM and SPM operating modes and all accessories / devices to ensure the



➤ Soilmec SR-125 in North America



► Soilmec SC-135 hydromill in China

highest level of accessibility, visibility and safety in compliance with the latest safety standards. The Soilmec SM-22 is truly a multi-function micro-drilling rig. Thanks to its modular design it can be easily set up in different configurations such as single rotary, double rotary, top-hammer and vibro-rotary to perform consolidations, micropiles and anchors with different drilling technologies, direct circulation, reverse circulation, DTH, CFA and jet grouting.

The novelty of the line, exhibited in preview, will be the SM-13e. The project was born with the aim of creating the first electric drilling machine, evolving that path started decades ago, with the advent of the first electric motorized rigs for internal environments and in tunnels (ST-20, ST -60, SM-5E, etc.). This is not simply a “engine replacement” to avoid the emission of exhaust gases in closed environments by connecting the

machine to an electric power cable. Infact the power transmission operates thanks to permanent magnet electric motors, lithium batteries, alternatives to cable power supplies, and control inverters. Hence a real leap forward from previous technologies. In essence this represents the first step in the development of a whole range of electrified Soilmec machines, which we call zero Emission of the E-TECH line. ■

ITALIAN ABSTRACT

UNA VESTE ESPOSITIVA COMPLETAMENTE RINNOVATA

Fin dal 1969, anno di fondazione, Soilmec si è sempre concentrata sullo sviluppo di valide soluzioni ingegneristiche per il mondo delle fondazioni costruendo linee di prodotti progettate per migliorare la qualità, la sicurezza, la produttività e la redditività del cantiere. Per quest'edizione del Bauma l'azienda di Cesena ha deciso di presentarsi con una veste espositiva completamente rinnovata mettendo al centro il cliente e le sue esigenze: dalla classica “sfilata” di perforatrici a un'esposizione ad aree tematiche, che riprendessero la quotidianità dei clienti attraverso approfondimenti su macchine, tecnologie e campi di applicazione. Le attrezzature esposte andranno a sottolineare le caratteristiche distintive dei prodotti che caratterizzano l'attuale gamma Soilmec, razionalizzata e implementata agli ultimi aggiornamenti tecnici. Tra le soluzioni proposte spiccheranno la linea “BlueTech” di macchine da palo, sviluppata con un'architettura a risparmio energetico per garantire il miglior utilizzo prestazionale attraverso soluzioni mirate a ridurre perdite di carico e consumi, e la linea di idrofresce, sarà rappresentata dall'ammiraglia SC-135Tiger, esposta per la prima volta a Monaco. La versatilità delle macchine per micro-palo avverrà attraverso l'esposizione di modelli in differenti configurazioni e la prima macchina elettrica a batteria. Infine ci sarà un'area dedicata a digitalizzazione, controllo e formazione.