

Press release

November 6, 2024

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Low-emission power and precise process engineering: Bauer sets new standards at the Friedrich-Krause-Ufer in Berlin

- Bauer Spezialtiefbau executes foundation work for office project Port ONE Berlin
- First deployment of the eRG 19 T hybrid from RTG Rammtechnik
- Challenges posed by urban location of the site
- Second construction phase almost 50% completed in October

Berlin, Germany – Roaring engines, smoky exhausts and the smell of fumes and diesel – the image of a typical major construction site? Not so at Friedrich-Krause-Ufer in the German capital Berlin. BAUER Spezialtiefbau GmbH, in cooperation with RTG Rammtechnik GmbH, a subsidiary of BAUER Maschinen GmbH, relies on innovative technologies for the 32,000 m² Port ONE Berlin office project that is executed by M-Port Optima Office Center GmbH. "We want to create a better future," stresses Lars Heilfort, Project Manager at Bauer Spezialtiefbau. "By using the new eRG 19 T hybrid, we demonstrate that construction sites can be efficient as well as quiet and low on emissions."

Technology meets craftsmanship

Bauer Spezialtiefbau has been utilizing the latest technology and precise craftsmanship since work began on the construction of the excavation pit and foundations for the new office and commercial building in November 2022. The order: construction of an impermeable excavation pit to create space for underground garages and equipment rooms on the basement levels. Over a total of two construction phases, a combination of Mixed-in-Place method (MIP), a pile wall and an LWS silicate gel base which was developed by Bauer is used. Initially, contaminated soil was replaced and foundation piles were constructed to increase load-bearing capacity. Upon completion of the excavation wall, vibration drilling with the eRG 19 T hybrid was carried out to specified grid spacing. These were then filled with insulation, grout pipes with valves were installed and silicate gel injected to create a stable sealing horizon. This way, the excavation pit stays dry and is ready for the subsequent specialist foundation engineering works.

Quieter, greener, more innovative

A construction site without noise and fumes? The eRG 19 T hybrid from RTG Rammtechnik demonstrates how it's done. As part of the Port ONE Berlin project, the new development is put through its paces for the first time. The innovative drive combines the power of a 430-kW diesel engine with the precision of an 88-kW electric motor (max. mains connection: 125 A). The unique combination of the two drives makes it possible to keep efficiency at a consistently high level despite the stringent emission requirements at Friedrich-Krause-Ufer. The diesel engine works at reduced capacity, aided by the supporting electric motor, resulting in a significant reduction in both CO₂ emissions as well as noise levels. Lars Heilfort is convinced: "Less noise, fewer emission – we demonstrate



how modern construction sites can make a difference." The hybrid operation of the eRG 19 T hybrid reduces diesel consumption by up to 68% (-17 l/h). This translates into 45 kg less CO_2 per hour. Projected onto a month, that's a 7 t CO_2 saving – an impressive testament to the benefits of this innovative drive technology.

Versatile game changer

The eRG 19 T hybrid doesn't just score highly because of its quiet operation but also because of its versatility. With its impressive performance capacity, it masters even demanding impact driving tasks of the next higher equipment group without any problems. But that's just the start: The electric motor flexibly takes on auxiliary work – efficiently and customer-fit. "Our technology responds to the conditions on site – a real game changer for me," says the project manager.

Modular design

Another highlight of the eRG 19 T hybrid is its modular design. The hybrid attachment at the rear contains all electronic components while the electric motor is easy to service with its integration into the quadruple transfer case at the upper carriage. Important data such as electricity consumption and performance can be checked at any time via the driver display. In addition, the maximum connected mains load can be adjusted directly in the operator's cab, depending on availability on site. The elevates flexibility to a whole new level. "With this combination of efficiency, environmental protection and state-of-the-art equipment technology, we set new standards in modern specialist foundation engineering," Heilfort sums up.

Tight space, great performance

The operation at Friedrich-Krause-Ufer has been running at full speed since the end of July. And the conditions are far from easy: Confined site conditions in an urban setting surrounded by a railroad area and highly sensitive old buildings in the immediate vicinity. Access to the site via a narrow approach road is restricted. But the construction site team is on top of even the most challenging conditions. The first construction phase has already been finished, and the second phase was near 50% completion as of October. Step by step, the foundations for the future are created – robust, low-emission and efficient.

Video:

Would you like to find out more? Watch the video: https://youtu.be/G3PTvROd2ok



Photos: pressebilder-press-images-erg-19-t-hybrid-rtg-friedrich-krause-ufer-berlin-bauer-spezialtiefbau...



(1) First deployment of eRG 19 T hybrid from RTG Rammtechnik in Berlin.



(2) Low noise, reduced CO_2 emissions: The innovative hybrid drive combines the performance level of a 430-kW diesel engine with an 88-kW electric motor.





(3) Bauer Spezialtiefbau uses a combination of Mixed-in-Place method (MIP), a pile wall and the company's own LWS silicate gel base.

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About BAUER Spezialtiefbau Group

BAUER Spezialtiefbau GmbH, the original parent company of the BAUER Group, has been a major driving force in the development of specialist foundation engineering. It carries out all of the customary processes of foundation engineering, primarily for excavation pits, foundations, cut-off walls and ground improvements on a worldwide basis. In doing so, BAUER Spezialtiefbau GmbH works closely together with their subsidiaries and branches across the globe. Regional networks around the world allow for the quick and flexible application of machines, teams and expertise. Bauer Spezialtiefbau offers their customers individual, creative and economical specialist foundation engineering solutions for demanding construction projects, from planning through to execution. More at https://geotechnical-solutions.bauer.de/en.

About BAUER Maschinen Group

For almost 60 years, equipment from Bauer has represented the highest performance and quality and constant innovation. The BAUER Maschinen Group is the world market leader in the development and manufacture of specialist foundation engineering equipment. BAUER Maschinen GmbH, which is also the holding company for a number of subsidiaries, designs and builds large-diameter drilling rigs, duty-cycle cranes, trench cutters, grabs and vibrators as well as the related tooling at its plants in Schrobenhausen, Aresing and Edelshausen. The subsidiaries manufacture state-of-the-art mixing and separation equipment as well as rotary drive systems and equipment for drilling small-diameter boreholes and wells. The BAUER Maschinen Group also operates manufacturing facilities in the USA, China, Malaysia, Italy, Singapore and Turkey. A component supplier within the Group is Schachtbau Nordhausen. The company operates a global sales and service network. More at https://equipment.bauer.de/en.

About Bauer

The BAUER Group is a leading provider of services, equipment and products dealing with ground and groundwater. The Group can rely on a worldwide network on all continents. The Group's operations are divided into three forward-looking segments with high synergy potential: Geotechnical Solutions, Equipment and Resources. Bauer profits enormously from the collaboration of its three business segments, enabling the Group to position itself as an innovative, highly specialized provider of products and services for demanding projects in specialist foundation engineering and related markets. Bauer therefore offers suitable solutions to the world's greatest challenges, such as urbanization, the growing infrastructure needs, the environment, as well as water. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2023, it employed about 12,000 people and achieved total Group revenues of EUR 1.8 billion worldwide. More information can be found at https://www.bauer.de/en. Follow us on Facebook, LinkedIn, Instagram and YouTube!