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Press release

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Metro expansion in Cairo: Bauer executes specialist foundation engineering works for Giza station

- Construction of 209 diaphragm wall panels and 20 barrettes for the new metro station
- BAUER MC 96 duty-cycle crane in operation
- Tight site conditions and a strict schedule

Cairo, Egypt – In the heart of Egypt's bustling capital, where ancient monuments meet modern mobility, one of the region's most technically demanding infrastructure projects is underway: the new Giza Station on Cairo Metro Line 4. With a planned depth of up to 81 m, it will be one of the deepest metro stations in North Africa. As part of the initial construction phase, Orascom Construction PLC has commissioned BAUER EGYPT S.A.E., the local subsidiary of BAUER Spezialtiefbau GmbH, to carry out the specialist foundation engineering measures. Work began in November 2024 and is scheduled for completion by December 2025.

Approx. 49,000 m² of diaphragm walls and 7,400 m² barrettes

Two special foundation techniques are being used for the new station in the Giza district of Cairo: in addition to 81 m deep diaphragm walls with a thickness of 1.5 m and 47 m deep diaphragm walls with a thickness of 1.2 m, 81 m and 35 m deep barrettes with the same dimensions are also installed. The barrettes are designed to transfer loads of up to 3,600 t into the subsoil. Amongst others, a BAUER MC 96 duty-cycle crane is in use for the construction work, which is executed and in double shifts, six days a week. As of May 2025, 84 panels of the total 209 diaphragm wall panels have already been completed. Once work is complete, the station will cover a total area of approx. 5,543 m². "At this size and depth, there's zero tolerance for deviation – every centimeter counts," says Karim Galal, Project Manager at Bauer Egypt. "The BAUER Construction Process provides us with a clear structure and guidance. It ensures that everyone involved in the project works to the same standards and helps us achieve our goals on time."

Limited space, technical challenges

Building the Giza Station requires not only precision at great depth, but also an exceptional level of logistical coordination. Certain areas of the construction site will continue to be used by the contractor until November 2025 for backfilling an existing tunnel. This is necessary so that the diaphragm walls boxes three and four in the main station can be excavated. The construction work will be carried out in several phases. "We're working under highly unusual conditions with extremely tight space and immense time pressure," Galal explains. Another unique aspect: the tunnel boring machines are operating one above the other – a first in Egypt, placing new demands on planners and contractors alike.



"The logistics, the depth, and the constant coordination with other trades present daily challenges, but that's exactly what makes this project so special," emphasizes the project manager. The specialist foundation engineering works are expected to be completed by the end of 2025 – a key milestone on the path toward modern urban infrastructure in Cairo.

Image: pressebild-press-image-metro-line-kairo-egypt-bauer-spezialtiefbau



In an estimated 14 months, Bauer Egypt will execute 209 diaphragm wall panels and 20 barrettes for Cairo's new metro station in the Giza district. Despite limited space and other challenges, work is progressing smoothly. © BAUER Group

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

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: 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 2024, it employed about 11,000 people and achieved total Group revenues of EUR 2.2 billion worldwide. More information can be found at https://www.bauer.de/en. Follow us on Facebook, LinkedIn, Instagram and YouTube!