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Press release

November 13, 2025

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Extraordinary dimensions on the Main-Danube canal: Bauer Spezialtiefbau executes retaining structure for replacement construction of Kriegenbrunn Lock

- Main excavation pit: 330 m long, nearly 30 m wide and 30 m deep secured by a
 pile wall, sheet pile walls, ground anchors, and 8,000 t of steel pipe braces
- More than 85% of piles already installed
- Digital planning and close coordination ensure smooth construction progress

Erlangen-Kriegenbrunn, Germany – With an order volume of 447 million euros (net) and a total construction period of eight years, one of Germany's most significant inland waterway infrastructure projects is taking shape in the southern part of Erlangen, Bavaria: the replacement of the Kriegenbrunn Lock. Commissioned by the Federal Waterways and Shipping Administration (WSV), the new lock is scheduled for completion by 2032 and will secure navigation on the Main-Danube Canal for generations to come. BAUER Spezialtiefbau GmbH, together with its joint venture partners Züblin Spezialtiefbau GmbH and Ed. Züblin AG, is responsible for constructing the retaining structure, among other tasks – an impressive project not only because of its massive scale, but also due to its technical complexity.

A Lock Structure on a Grand Scale

The centerpiece of the project is the main excavation pit with an impressive length of 330 m and a width and depth of nearly 30 m each. To secure the excavation pit, the specialist foundation engineers are constructing a secant pile wall. Using the Kelly drilling method, fully cased piles are installed with a diameter of up to 2 m and a length of up to 37 m. Sheet pile walls, ground anchors and roughly 8,000 t of steel pipe braces with diameters of up to 1.40 m are also executed as struts for the main excavation pit. "These dimensions are extraordinary even for specialist foundation engineering," explains Bauer Project Manager Andreas Hertenberger. "Each pile needs to be installed with the utmost precision – this is the only way we can ensure the stability of the entire excavation pit." Among other equipment, several Bauer drilling rigs are being used for the work, including the BG 55, BG 45, and BG 39.

On the home stretch

By the end of October, more than 85% of the piles for the retaining structure were already constructed. At the same time, excavation work has already begun on the main excavation pit, paving the way for the start of lock construction. "Close coordination between all trades involved is essential," adds Bauer Site Manager Agnes Demharter. "The only way to successfully complete a project of this magnitude is with exact planning, digital assistance and a strong team on site."



An important step for ship traffic

The replacement of the Kriegenbrunn Lock is more than technical feat – it's a milestone for the future of waterway infrastructure in Germany. "Here, we are building the foundation to ensure safe and sustainable ship traffic for decades to come," emphasizes Hertenberger. What makes us particularly proud," Demharter adds, "is that every single member of our team contributes their expertise and dedication to turning this once-in-a-century project into reality."

Video: Discover the precision and teamwork behind this major engineering effort – watch the video at https://youtu.be/fte7U3TSJUA

Photos: pressebilder-press-images-schleuse-lock-kriegenbrunn-bauer-spezialtiefbau...



(1) The replacement of the Kriegenbrunn lock is one of the largest waterway projects in Germany.





(2) Pile by pile: The retaining structure for the 30 m deep main excavation pit is constructed using the Kelly drilling method.



(3) From left: Andreas Beier (Project manager and authorized construction representative, Waterway Construction Authority of Aschaffenburg) and Andreas Hertenberger (Project manager, BAUER Spezialtiefbau GmbH)





(4) With dedication, precision, and teamwork, the Bauer team is mastering the challenges of the lock project.

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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

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!