

Press Release

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bauma Innovation Award 2025

Construction category
BAUER Spezialtiefbau GmbH

The offshore foundation technology of the future: Bauer's Dive Drill method nominated for bauma Innovation Award 2025

Schrobenhausen, Germany – Securing the energy supply, protecting the oceans: With the innovative Dive Drill method, Bauer is setting new standards in the construction of offshore foundations. Whether in stormy seas or hard rock, thanks to this ultramodern method and a drilling rig developed in-house, offshore wind parks can be built safely and sustainably even under extreme conditions. The secret? Efficiency, precision and a clear focus on environmental protection.

Securely anchored in the ocean

Whether in soft sediments or the hardest rock with a compressive strength of up to 200 MPa, the Dive Drill method can be used in a wide range of ground conditions. This makes it an ideal choice for anchoring stationary and floating offshore wind turbines or tidal turbines: a secure way of anchoring the renewable energy of the future.

This drilling rig specially developed by Bauer is controlled from a vessel. Thanks to low-vibration drilling, the impacts on the sensitive ecosystem are minimal – operating noise is scarcely perceptible even in the immediate vicinity of the drilling location. An additional environmental benefit: Biodegradable fluids are used in the hydraulic circuit. Temporary casings stabilize the borehole while the drilling tool crushes the material and carries it away as a pumpable slurry.

Efficiency on the high seas

The Dive Drill concept stands for maximum efficiency and economy. Multiple drilling rigs can work in parallel, which significantly accelerates the completion of a foundation – and less time means reduced costs. The technology has already proven successful: Off the coast of France, Bauer successfully installed 190 piles with a load-bearing capacity of up to 20,000 kN at water depths of up to 40 m for an offshore wind park.

Even when it comes to the energy supply for drilling rigs, Bauer is opening up new avenues: Electrohydraulic drives ensure maximum efficiency with minimum energy consumption and can be used flexibly on stationary or floating platforms. One highlight: To prepare the cement slurry for grouting the foundation elements, seawater was used instead of freshwater, which

achieved another considerable reduction in logistics expenditure and made the method even more sustainable. A perfectly coordinated tool to assist the process: the ultramodern batch mixing plants from Bauer Maschinen subsidiary BAUER MAT Slurry Handling Systems.

By land and by sea

For more than 50 years now, BAUER Maschinen GmbH has been developing precision equipment for specialist foundation engineering. Technologies that have proven successful onshore (e.g. Kelly drilling or cutting) are now used on the high seas as well. The Dive Drill is an impressive example of how the principles of onshore drilling technology can be successfully transferred to offshore activities.

Towards a sustainable future

With the Dive Drill method, Bauer is opening up new horizons in the offshore area. Apart from classical foundation work and mining projects, the method is also suitable for the exploration of natural resources. It combines state-of-the-art technology with expertise obtained over the course of many decades and sets new standards for efficiency and eco-friendliness. It is a key tool for the future of offshore renewable energies and offers customer-fit solutions for the growing requirements of the global energy sector.

“Our expertise in specialist foundation engineering combined with innovative technologies enables us to implement offshore projects efficiently and sustainably,” explains Harald Heinzelmann, Managing Director (COO) of Bauer Spezialtiefbau. “With our Dive Drill method, we create the basis for a groundbreaking use of renewable energies – safe, precise and resource-efficient.”

Contact:

If you have questions about the topic of “Efficient offshore foundations,” please feel free to contact **Barry Eagles**, Managing Director of BAUER Offshore Technologies GmbH, Phone: +49 8252 97-2981, barry.eagles@bauer.de

Video: Dive into the world of offshore foundations – And action:

<https://youtu.be/To6JCma0r5c>

Images: pressebilder-press-images-bauma-innovationspreis-2025-offshore-bauer-spezialtiefbau...



(1) With the Dive Drill method, Bauer is setting new standards in the construction of offshore foundations. Efficiency, precision and a clear focus on environmental protection are key aspects. © BAUER Group



(2) With up to three simultaneously operating drilling rigs, piles were safely and efficiently anchored in difficult soil conditions. © BAUER Group



(3) Passing the reinforcement test: Bauer drilled a total of 190 piles off the coast of France using the Dive Drill method. © Van Oord

About the BAUER Spezialtiefbau Group

BAUER Spezialtiefbau GmbH, the parent company of the BAUER Group, has played a leading role in shaping the development of specialist foundation engineering. The company implements all common methods in foundation engineering worldwide, primarily for excavation pits, foundations, cut-off walls and soil improvement. In the process, BAUER Spezialtiefbau GmbH collaborates intensively with its subsidiaries and branch offices around the world. Regional networks around the globe make it possible to deploy equipment, teams and expertise quickly and flexibly. Bauer Spezialtiefbau offers its customers individual, creative and economic specialist foundation engineering solutions for challenging construction projects, from design to execution. Learn more at <https://geotechnical-solutions.bauer.de/de>.

About Bauer

The BAUER Group is a leading provider of services, equipment and products related to ground and groundwater. Bauer operates a worldwide network on all continents. The operations are divided into three future-oriented segments with a high potential for synergy: Geotechnical Solutions, Equipment and Resources. Bauer profits greatly from the collaboration between its three separate business divisions, enabling the Group to position itself as an innovative and highly specialized provider of products and services for demanding projects in specialist foundation engineering works and related markets. Bauer therefore offers appropriate solutions for the world's major challenges, such as urbanization, growing infrastructure needs, the environment, and water. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2023, it employed some 12,000 people and achieved total Group revenues of EUR 1.8 billion. More information can be found at www.bauer.de. Follow us on [Facebook](#), [LinkedIn](#), [Instagram](#) and [YouTube](#)!