



BAUER OFFSHORE TECHNOLOGIES



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Offshore operations and challenging marine environments demand the utmost respect. We partner with our clients from feasibility to execution ensuring confidence in all decisions. With the correct mindset, safe and reliable operations are fully achievable.“

Barry Eagles
Managing Director Operations
BAUER Offshore Technologies



Dear readers,

Offshore projects are never simple. Each site presents its own challenges – from complex soils and variable water depths to tight schedules and environmental considerations. At BAUER Offshore Technologies, we see these challenges as opportunities – to innovate, improve, and deliver solutions that are reliable, efficient, and sustainable.

Our teams combine decades of global offshore experience, technical expertise, and a commitment to problem-solving. Every engineer, planner, and operator brings curiosity, skill, and dedication to each project.

Together, we turn ambitious plans into real-world results, often in conditions where conventional approaches fall short. We are proud to deliver solutions that meet the high expectations of our clients while respecting the marine environment.

Sustainability is embedded in our approach – from low-emission operations and biodegradable fluids to efficient processes that minimise marine traffic. For us, innovation and responsibility go hand in hand.

This brochure is an invitation to explore how we work, how we think, and how we tackle complex offshore challenges – reliably, responsibly, and differently. We hope it gives you a sense of who we are, what drives us, and how we can contribute to your next project.

Managing Board,
BAUER Offshore Technologies



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At all times, our commitment to technical excellence, creativity, and passion drives us to deliver solutions that inspire — and perform with absolute reliability.”

Stefan Hackl

Managing Director Technology
BAUER Offshore Technologies

WHAT WE STAND FOR

Offshore foundations demand more than technical capability. It requires respect – for the environment we work in, for the physical forces we design against, and for the people who execute complex operations at sea.

At BAUER Offshore Technologies, our values, vision, and mission are shaped by this understanding. We believe that long-term project success is built on engineering discipline, responsible execution, and collaboration grounded in clarity and trust. These principles guide how we develop solutions, how we work with our partners, and how we operate offshore.

Our values

As a globally operating company we are responsible to protect the environment and to create a sustainable future for the following generations. We are proud to support the renewable energy industry with our services and experience to deliver green power.



Our vision

We consider renewable energies essential to tackle climate change and securing a sustainable future for the next generations. Our ambition is to become the ecological world leader in specialist offshore foundations solutions across all offshore energy sectors.



Our mission

Is to deliver high-performance offshore foundation solutions through continuous innovation, technical excellence, and cost-effective engineering. We create value across the entire supply chain by combining close collaboration, standardised solutions, and a strong focus on quality and reliability.



Our HSE commitment

We work in accordance with the highest offshore HSE standards, with clear environmental responsibility. By reducing harmful emissions, protecting marine habitats, and increasing the lifetime of offshore installations, we support the sustainable development of offshore energy projects.



SHAPING OFFSHORE FOUNDATIONS

At BAUER Offshore Technologies, we turn complex offshore wind challenges into practical, reliable solutions. From the earliest Constructability and Feasibility Studies to Concept Design, pre-FEED (Front-End Engineering Design), and FEED, we partner with developers and contractors to identify and reduce risk, optimise costs, and ensure every foundation solution is engineered for success.

We specialize in drilling and grouting operations, designing bespoke equipment and processes tailored to each project's unique conditions. We provide the engineering expertise, specifications, and project oversight that enable our partners to deliver offshore installations safely, efficiently, and on schedule.

Founded on a legacy of innovation, BAUER Offshore Technologies combines technical precision with practical problem-solving. We focus on understanding each site's demands, collaborating closely with clients, and guiding projects from initial concept through FEED to successful offshore installation – helping developers and contractors navigate complexity with confidence and clarity.



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1 Designed to withstand $H_{max} = 8$ m and water depth exceeding 100 m, BOT's installation system sets the standard for offshore foundation installation.

2 Made to perform in the harshest of environments.

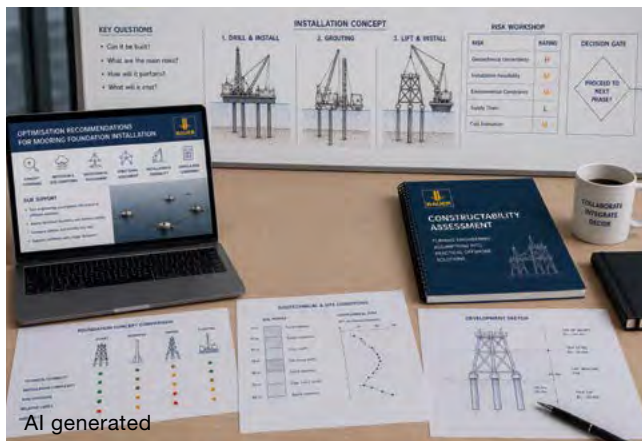


Bespoke drilling and grouting equipment to match any challenging project.

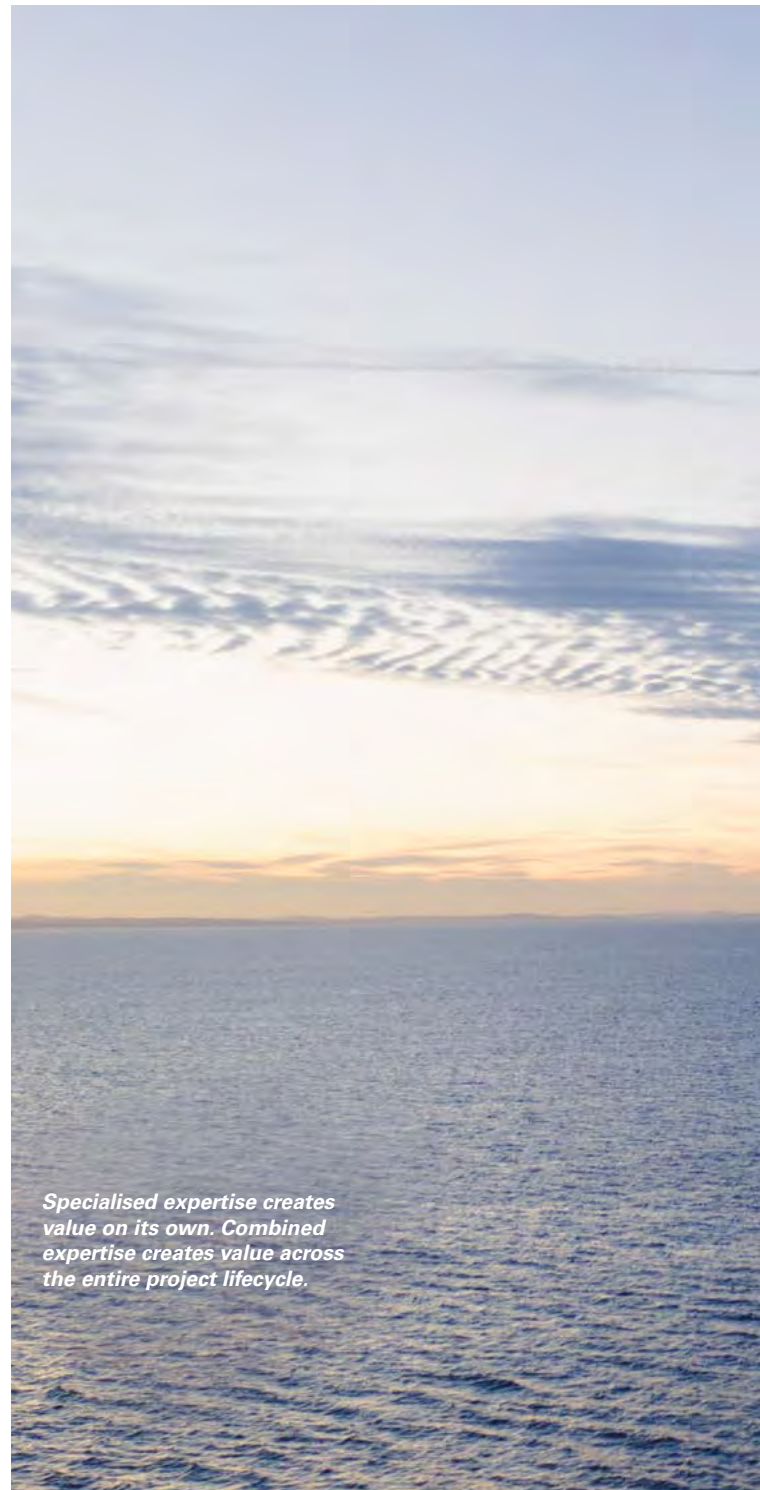


WHERE EXPERTISE COMES TOGETHER

Successful offshore foundation installation is more than the sum of its individual disciplines. BAUER Offshore Technologies helps optimize the interfaces to increase confidence in the early stages of project development. Engineering, constructability, installation methodology, vessel capabilities and offshore execution all contribute to project delivery. With the combined capabilities of BAUER Offshore Technologies, as foundation drilling and grouting expert, and the DEME Group, the leading offshore transportation and installation contractor, we can provide an integrated foundation installation environment from project development through offshore installation. By bringing these capabilities together within a single ecosystem, project interfaces can be aligned more effectively, reducing delivery risk, improving execution certainty and supporting more efficient offshore foundation installation.



With BOT's installation methodology, drilling and grouting form part of a single integrated installation process rather than separate offshore operations reducing interfaces.



Specialised expertise creates value on its own. Combined expertise creates value across the entire project lifecycle.



FOUNDATIONS TO RELY ON

BAUER Offshore Technologies delivers engineered solutions for complex offshore construction projects. By combining decades of experience, purpose-built equipment, and a highly skilled and dedicated team, we provide integrated drilling and grouting solutions as well as relief drilling services tailored to each project's specific requirements. We reliably install pin piles, mooring piles and foundations for other high-energy devices.

Our focus is on safe, efficient execution – supporting project success while respecting people and the marine environment.

OUR FIELDS

■ Fixed Offshore Wind

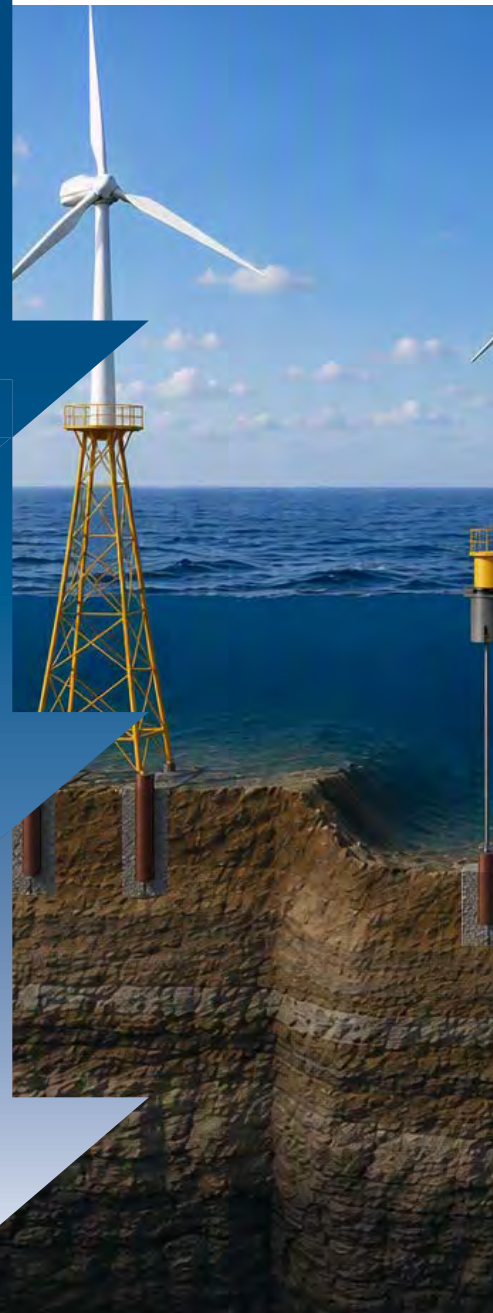
We drill across all soil profiles and conditions including rock with strengths of up to 200 MPa. This includes fully drilled sockets with a protective temporary casing or relief drilling through driven piles.

■ Floating Offshore Wind

Our mooring pile foundations achieve load holding capacities of 2,000 t with higher capacities available as required.

■ Other high energy devices

Our equipment operates reliably in demanding marine environments, including high-current conditions of up to 12 kts suitable for applications such as Tidal Turbine Foundations.





Want to see how our method works? Click here to see our Floating Offshore Wind animation.



Different offshore foundations, one proven installation method: drilled and grouted piles.

AI generated

OFFSHORE PILE INSTALLATION REDEFINED

Our systems enable offshore pile installation across all soil and rock conditions, including complex seabeds and rock strengths of up to 200 MPa. We operate in water depths of up to 100 m and in demanding sea states, supported by extended weather window operability. In conditions where pile driving is not feasible, we drill through hard layers to ensure piles reach their final depth. For pin piles, multiple units operate simultaneously, accelerating project timelines. We combine standardised and bespoke equipment with decades of global drilling experience to deliver efficient, safe, and reliable drilling and grouting operations with a clear focus on performance and sustainability.





Environmentally friendly through **low noise emissions** and **bio-degradable** hydraulic fluids

Project de-risking through **fully-cased** bore hole until **target depth**

Cost savings through **re-usable** Temporary Casing suiting pile dimensions

Scalable drilling and grouting systems allowing for reduced vessel size



KEY ADVANTAGES AT A GLANCE



Safe operations from control room through umbilicals



Operating in up to 4 m wave height



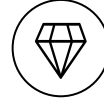
Re-useable Temporary Casing(s) throughout the project



Full remote control of all Dive Drill functions.



Fully protected bore hole until target depth



Drilling independent from vessel crane



Minimal launch and recovery time without the need for drill string build up

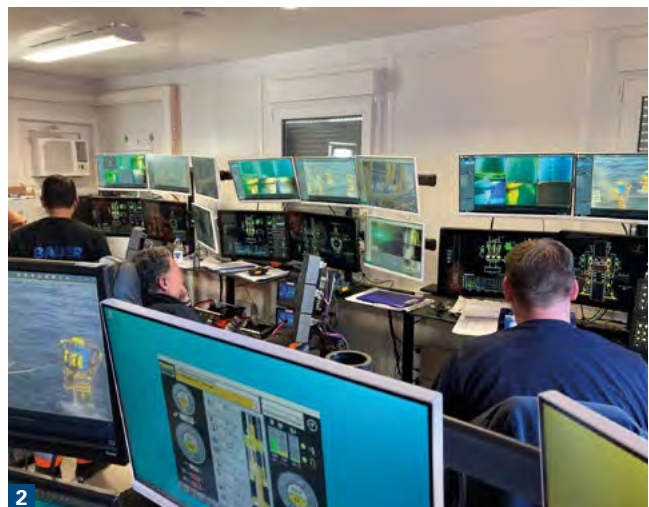


Simultaneous operations of up to 4 drills





Interested in how our operations look like in real life? [Click here](#) to watch our latest project video.

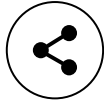


1 Our method and equipment provide the same benefits for jackets as well as for floating wind foundations; it's safe, fully protected and independent of the vessel crane.

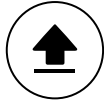
2 Our Dive Drill operating personnel is working from the safety and comfort of a modern office environment from where they can control all functions of our equipment remotely.

We drill all template sleeves simultaneously and independently from one another considerably reducing the time required to complete a location.

GROUTING SMART FEATURES



*Combined
Grouting and
Pile Lifting
Adapter*



*Bottom-up
grouting, full
circumference*



*Including capa-
bility to mitigate
buoyancy of the
pin pile*



*Equipment recov-
ery while grouting
process ongoing*



*Integrated grout
level monitoring
system (optional)*



*Visual confirma-
tion of successful
grouting without
use of ROV*

Bottom up grouting is a safe method to ensure the full circumference is grouted. Via cameras on the template or Rov we can visually confirm successful grouting operations.



Every offshore operation benefits from reducing interfaces, minimising downtime and providing clear operational feedback. Our grouting system combines several functions into a streamlined operation, reducing interfaces and increasing efficiency. Rather than treating grouting as a separate activity, we have developed a process in which drilling and grouting work together as part of a single installation sequence. Our process provides a seamless transition from drilling to grouting, allowing each jacket pin pile to advance independently while drilling and grouting activities continue simultaneously.



AI modified



Lifting the pile is done via our Grout and Lifting Adapter that can also provide ballast to counter potential buoyancy of the pile. All in a single device and a single lifting operation.

BAUER OFFSHORE PROJECTS



Saint-Brieuc – Brittany, France

From 2021 to 2022, BAUER installed a total of 190 piles for the Saint-Brieuc Offshore Windfarm off the coast of Brittany, France. We operated three dive drills simultaneously with seamless transfer to grouting the pin piles, making the operation exceptionally time-efficient. The wind farm is the first worldwide project, using simultaneously drilled and grouted pin piles for jacket installation.

Drilling Parameters

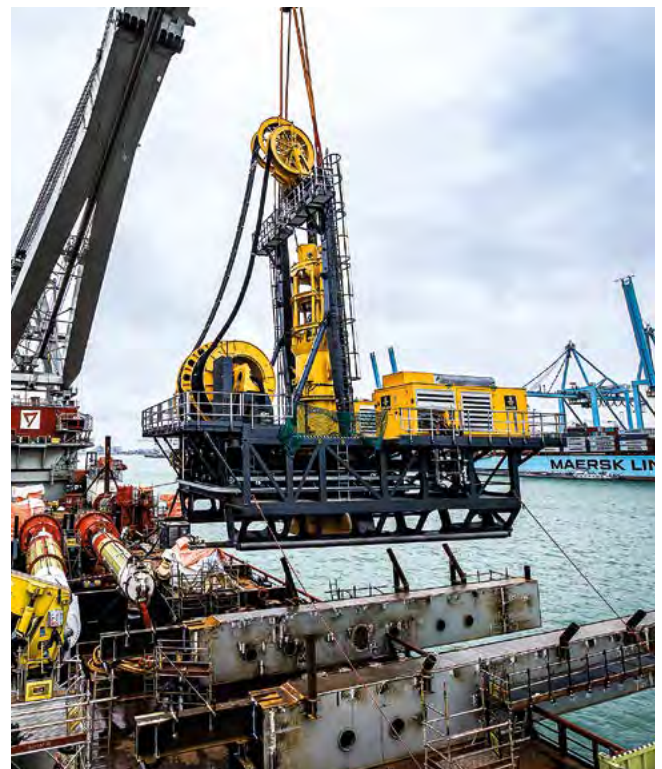
	
190 Piles	3.10 m Drilling Ø
	
>180 MPa Soil strength	47 m Drilling depth

Beatrice Outer Morray Firth, UK

BAUER was contracted to provide equipment and operation for relief drilling for 4-legged Jacket installation in 2017, using our Dive Drill DD C40, the predecessor of our current DD CU44. The jacket foundations at Beatrice are one of the deepest worldwide.

Drilling Parameters

	
344 Piles	2 m Drilling Ø
	
Glacial boulders Soil strength	As required Max. depth





EMEC Monopile for Tidal Turbine – Orkney, UK

In the summer of 2011 BAUER was principal contractor for the monopile foundation for a tidal turbine from Voith Hydro. At a water depth of 37 m, a 23 m long monopile of 2 m diameter was installed in an 11 m deep rock socket and fixed with high-strength mortar.

The drilling equipment was designed and built by BAUER Maschinen and operated in up to 12 knots of tidal current.

Drilling Parameters



1
Pile



2 m
Drilling Ø



>180 MPa
Soil strength



11 m
Drilling depth

Barrow Offshore Windpark - East Irish Sea, UK

The monopile foundations for the 90 MW wind park in the East Irish Sea were installed in 2005 by the Drive-Drill-Drive technique.

BAUER did the relief drilling using its Fly Drill BFD 5500 to reduce frictional resistance of the 4.75 m diameter foundation pieces in the hard soil layers. Main contractor MPI Ltd. used its state-of-the-art installation vessel "MPI Resolution" for the work.

Drilling Parameters



30
Piles



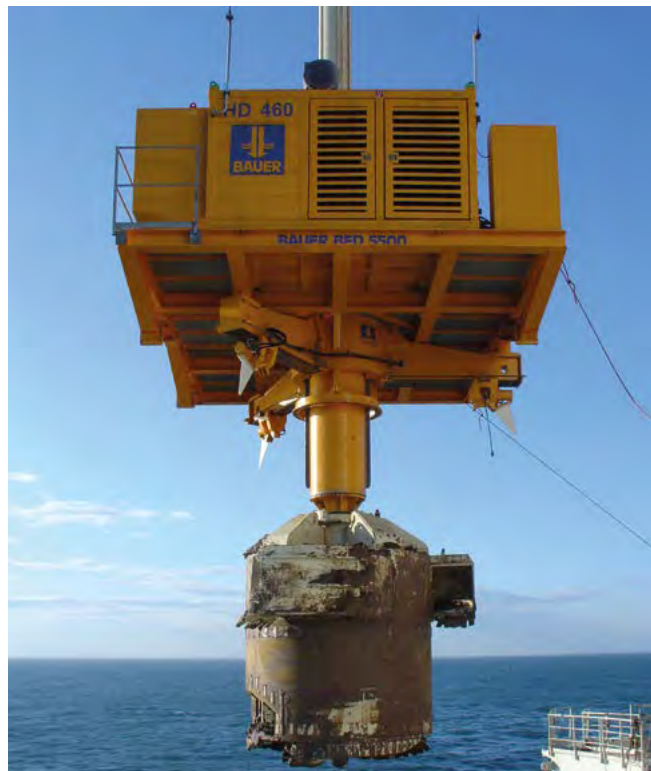
4.75 m
Drilling Ø



8 MPa
Soil strength



> 56 m
Drilling depth





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