



Factory for offshore wind turbines, Cuxhaven

Data and facts

Company	PORR Spezialtiefbau GmbH
Type	Foundations
Runtime	03.2016 - 06.2016
Principal	Siemens Energy

[Project report online](#)

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Safe transmission of loads with over 1,000 Simplex piles

Deep foundation of the columns

Siemens put out a tender for a deep foundation to carry the high concentrated loads under the columns of the future factory hall. Due to the large quantity of piles required for the project, The Special civil engineering entered a bidding consortium with Kurt Fredrich Spezialtiefbau GmbH for the project – and was awarded the contract. Precisely 1,839 Simplex piles were used. Peak output reached 550 metres per day. The team produced 1,056 Simplex piles of up to 25 metres long and with diameters of 46, 51, and 61 centimetres using the KBM 02 pile driver alone. The consortium partner produced the remaining piles with two units. These were mostly raking piles, which took considerably more time. The consortium used a total of 520 tonnes of reinforcing steel and 12,000 cubic metres of pile concrete.

Test loads made all the difference

Three preliminary test loads with up to 9,500 kN pressure and the assistance of Spezialtiefbau Planung in processing the bid were the deciding factors that led to the awarding of the contract. The bidding consortium was ultimately able to eliminate 140 of the originally planned number of piles without substitution and reduce the circumference of numerous other piles from 51 to 46 centimetres in diameter.

Pile driving began at the start of March 2016. The consortium completed the work on time at the end of a twelve-week construction period.

Impressions

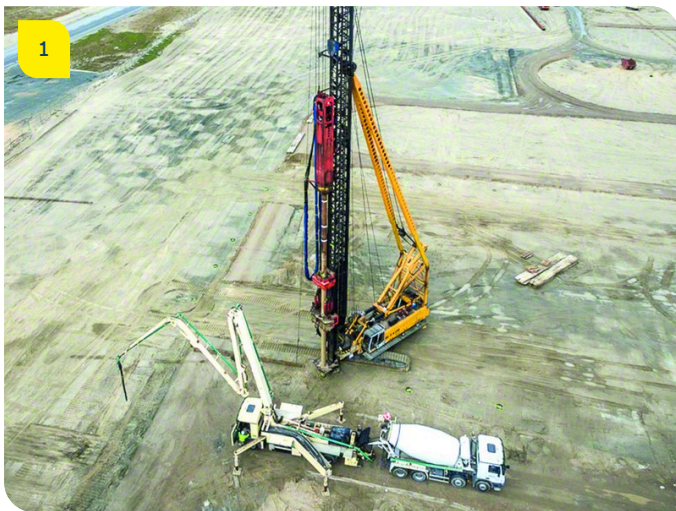


Image notes

1

The KBM02 pile driver drove up to 550 metres of Simplex piles per day.

2

Concreting a Simplex pile with a mobile concrete pump.

Do you have questions about the project or would you like to learn more? Feel free to contact us for further information.

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