

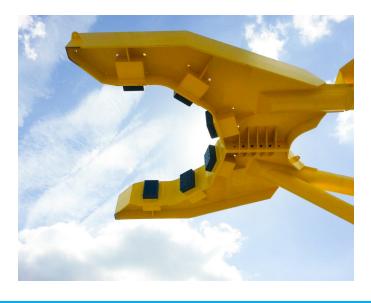






Pre-piling Template for Baltic II

Back in 2011, the joint venture Hochtief Solutions, GeoSea, and Nordsee requested TWD to design a pre-piling template for driving the piles at the Baltic II offshore wind farm (OWF). Baltic II OWF is located 30 km north of the German Rügen island in the Baltic Sea. The OWF consists of 39 monopiles and 41 jacket foundations for 80 wind turbines. Using our pre-piling template, 123 piles were driven and installed at 41 locations from the jack-up barge (JUB) Goliath.



Template Design

To optimize the efficiency of the piling operation, we customized the pre-piling template for this jacket installation project and vessel. We designed a 3-sleeve template, tailored for the jacket leg distance and pin-pile diameter, that constrains the piles, minimizes the pile inclination, and controls the mutual distance. The template was horizontally guided by 2 frames that interfaced with the spud legs of the JUB. The lowering was operated using 3 winches on the JUB deck.

With over a decade experience in method engineering and equipment design, we at TWD have developed our expertise in creating effective piling methodologies and translating them to robust template designs.

Project highlights

- A triangular piling template
- Horizontal constraining system using the spud legs
- Easy-to-use lifting system and winch foundations
- Interfacing with measurement systems for pile driving depth

