

## INSTALLATION OF 72 MONOPILES ON KRIEGER'S FLAK WINDFARM IN RECORD TIME

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### THE PROBLEM

Van Oord, a Dutch maritime contracting company, was awarded a contract to install 72 monopiles on the Danish Krieger's Flak offshore wind farm in the Baltic Sea. Vattenfall holds the concession of the field which will be Denmark's largest wind farm and is scheduled to be fully operational in 2021. Once completely commissioned, it will supply almost 600,000 households with 604 Megawatt of renewable energy.

The monopile foundation installation is one of the key elements of an offshore wind farm construction project, and MENCK, an Acteon company was contracted to provide their market leading MHU3500S hammer and associated services to drive coated monopiles with 6m diameter. The monopile is the preferred foundation method for wind farms with special requirements on pile handling and adjustment. One of the challenges was to maintain the desired monopile installation frequency of one per 24 hours.

### THE SOLUTION

MENCK provided an MHU3500S hammer with the pile sleeve modified to drive the coated monopiles. The hammer was supplied by three MHP1600 power packs and ancillary 2.5" hose spread. The scope of services included project management, engineering, equipment modification and preparation, logistics, commissioning and the offshore operation of the hammer spread by expert technicians.

To maintain the desired monopile installation frequency and provide additional value to the customer, the seamless operational capability of the spread had to be safeguarded by MENCK. Therefore, their onsite service personnel conducted the pre- and post-installation inspections of the equipment with precision and accuracy, backed up by onshore subject matter expertise and spare part management.

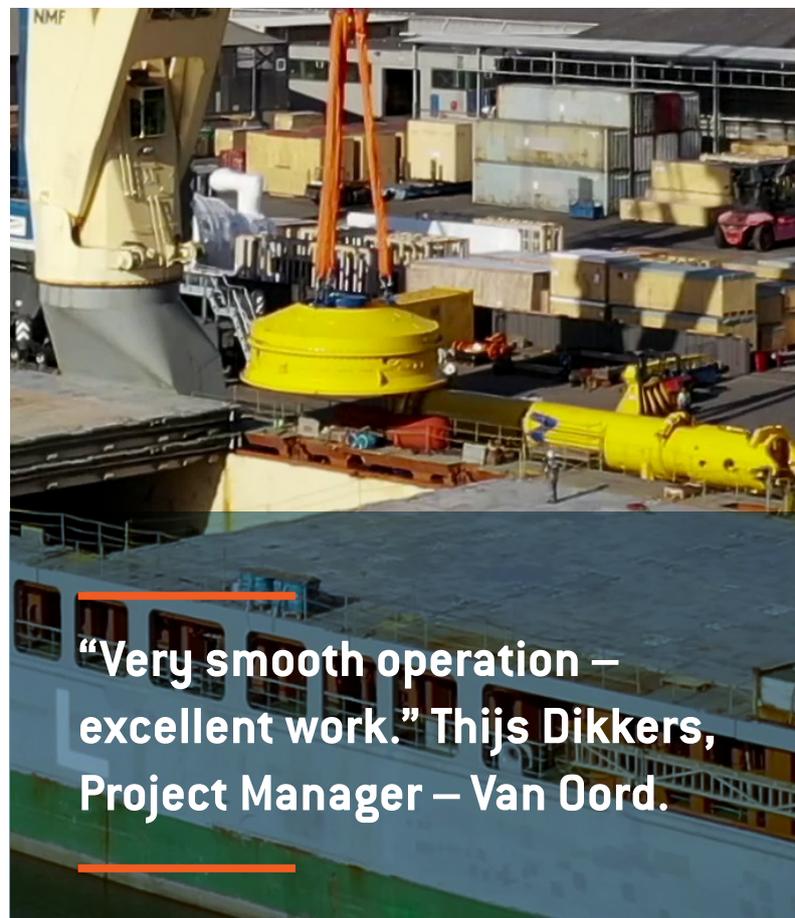


### THE RESULT

MENCK's strategic partnership with Van Oord resulted in the installation of 72 monopiles for Danish Krieger's Flak in a record time and without notable downtime of the hammer spread. The service was provided successfully and both Van Oord and Vattenfall were very satisfied with the project delivery from start to finish.

The swift offshore installation meant a significant reduction of cost and organisational effort for the client. The project has further strengthened MENCK's track record and credibility in the offshore renewables industry; more than just a hammer supplier, MENCK has become a trusted partner for many offshore construction companies.

"With the last monopile installed, I wish to thank you for the reliable and solid hammer services for Kriegers Flak. Very smooth operation – excellent work." Thijs Dijkers, Project Manager – Van Oord.



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