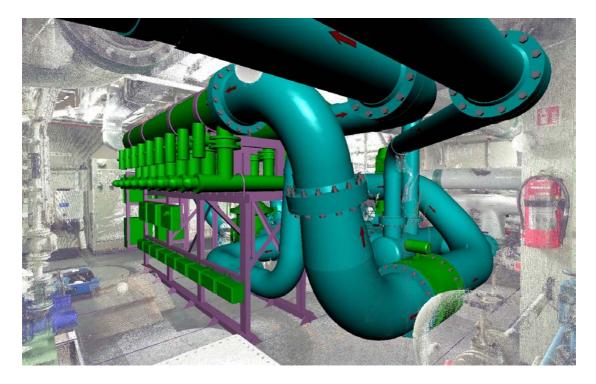
Goltens, Optimarin and Royal Netherlands Navy complete the World's first installation of a USCG approved BWT system onboard a Naval Vessel.



The Royal Netherlands Navy has achieved the distinction of becoming the world's first Navy to install a USCG approved ballast water treatment (BWT) system, fitting two Optimarin units on-board the Landing Platform Docking vessel *Zr.Ms. Johan de Witt*. Global engineering specialist Goltens Green Technologies completed the installation at the Navy Yard in Den Helder last month.

The project is part of a ten-vessel agreement between Goltens and the Navy, which will see turnkey installations of the Optimarin Ballast System (OBS) across a selection of advanced, specialist ships. OBS became the first BWT system to achieve full USCG approval in December last year.

"This was both a complex and landmark project for us and our partners," comments Maarten Romijn, Project Manager, Goltens. "Space on this vessel was at a premium, so, after thorough 3D scanning, we exploited the modular nature of the Optimarin system to plan for an optimal installation, before starting pre-fabrication of the piping and electrical components."



"We then made a large transport opening in the ship's hull to move the system and all related parts into the pump room. As such the project wasn't straightforward, but by drawing on our expertise, and working in close collaboration with the Navy and Optimarin, it was completed within the maintenance period of the vessel."

"We're now looking ahead to the next conversions, and building our strong working relationship with Optimarin."



Roy van Kruisbergen, Project Manager, Royal Netherlands Navy: "We're focused on optimising both the flexibility of our fleet and their environmental performance. We now have a BWT system that meets the Royal Netherlands Navy demands. We look forward to emulating the success of this project on upcoming installations."

Goltens fitted two OBS units on the 28,395 GT, 176m long vessel, with one 1500m³/h system and one 500m³/h unit. Boasting a combination of automatic back flushing, self-cleaning filters (Boll & Kirch) and powerful 35 kW UV lamps, the systems have the capacity to neutralise all potentially invasive species in ballast water. Alongside USCG compliance the OBS also has full IMO approval and certification from DNV GL, Lloyd's, Bureau Veritas, MLIT Japan, and American Bureau of Shipping.

"Gaining USCG approval was a milestone for this business, and the wider industry," remarks Optimarin CEO Tore Andersen, "and it's another significant step to complete the first installation after that development. That it's with a customer of the standing of the Royal Netherlands Navy makes it even more special.

"Together with Goltens we have unparalleled expertise in retrofitting BWT systems, ensuring that we can find solutions for every individual shipowner, and vessel. Working as a partnership we aim to give our customers exactly what they need simple, reliable, easy to install, and 100% globally compliant systems. With complete peace of mind and operational flexibility as standard."

Goltens and Optimarin have retrofitted OBS units on around 100 vessels globally. In total, Optimarin has now sold more than 500 OBS systems, with over 300 installed and operational worldwide.

Goltens - The Goltens Worldwide group of companies is a leading provider of specialized repair, maintenance and reconditioning services and supplier of engineering components for the global shipping industry, offshore marine installations, industrial plants and power stations. For years, Goltens has been the most trusted provider for in-situ machining, diesel engine repair and maintenance and more recently, as a global leader in environmental compliance retrofits with its Green Technologies division. Goltens is the only independent repair specialist to offer shipowners, managers and OEMs comprehensive worldwide service from over 25 locations in 14 countries across the globe, and serves over 3,000 clients each year. For more information about the Goltens Worldwide group of companies, please visit <u>www.goltens.com</u>.