



Driving hydraulic expertise offshore

Drawing on over 50 years of expertise in high pressure hydraulic tools and systems, Holmatro has solidified its position as a key player in addressing the challenges faced by the offshore wind industry. In an exclusive interview with PES, Aries Dijkhuizen, Key Account Manager, shares how the company's extensive experience has informed its approach to developing durable, precise, and reliable hydraulic solutions specifically designed for harsh marine environments.

PES: Welcome Aries. Holmatro has over 55 years of experience in high pressure hydraulic tools and systems. How has this experience shaped your approach to addressing challenges in the offshore wind industry?

Aries Dijkhuizen: Holmatro's extensive experience in high pressure hydraulic tools and systems for both industrial and rescue purposes has significantly shaped our approach to addressing challenges in the offshore wind industry. Our history and expertise contribute in several ways.

Our decades long experience has provided us with a deep understanding of hydraulic systems. This knowledge allows us to develop and refine tools that meet the specific demands of the offshore wind industry, such as high durability, precision, and reliability in harsh marine environments.

With our rich history in various sectors, we have developed a versatile approach to problem solving. We apply this adaptability to the offshore wind sector by customizing our hydraulic solutions to address unique challenges, such as underwater operations, high pressure requirements, and the need for remote handling capabilities

Safety is paramount in both hydraulic operations and the offshore wind industry. Our extensive experience has ingrained a strong safety culture within our company, leading us to design tools that prioritize operator safety and adhere to stringent industry safety standards.



Aries Dijkhuizen

Over the years, our commitment to R&D has kept us at the forefront of hydraulic technology. We leverage our historical insights and technical prowess to continuously innovate, ensuring that our products meet the evolving needs of the offshore wind industry, from installation and maintenance to decommissioning.

With a history of serving a global clientele, we have established a robust support network. This enables us to provide reliable service and maintenance for offshore wind projects worldwide, ensuring minimal downtime and efficient operation.

PES: Can you describe the evolution of your products and services specifically tailored for the offshore wind sector? What key innovations have you introduced over the years?

AD: We offer a range of hydraulic jacks and controls to compose systems that provide precise control over the leveling and fixation process. These systems allow for gradual adjustments, ensuring that the foundation is leveled accurately according to specifications and afterward fixed in that exact position.

Our hydraulic, industrial cutting tools have been refined to handle the robust materials used in wind turbine construction and decommissioning, providing clean and efficient cuts while reducing operator effort.

We developed specialized and customized lifting solutions, including jacks, synchronized lifting systems skidding systems, sea fastening systems, topside leveling systems, blade lowering systems, and more to facilitate the transport, installation, and maintenance of heavy wind turbine components both onshore and offshore.

PES: What are the primary challenges faced in the installation and maintenance of offshore wind turbines, and how does Holmatro address these challenges?

AD: The process poses several significant challenges, ranging from harsh environmental conditions to logistical complexities and safety issues. We address these challenges through a combination of advanced technology, customized solutions, and industry specific expertise. Durable and corrosion resistant tools by using advanced high grade materials and coatings, corrosion resistant materials, and protective coatings to ensure the longevity and reliability of our hydraulic tools in harsh marine environments.

Our tools are always designed with both the user and operational efficiency in mind. They are compact and portable, facilitating easier transportation and deployment in remote offshore locations. No matter the field of application, when working with high pressure hydraulics safety should always come first. Our tools always incorporate fail safe mechanisms and ergonomic designs to enhance operator safety and reduce the risk of accidents and we provide comprehensive training and support to ensure that operators are well versed in the safe and effective use of our equipment.

PES: Safety is paramount in offshore wind installations. How do you ensure the safety of your hydraulic tools and systems during operation in such challenging environments?

AD: Ensuring the safety, reliability, and durability of our products in the demanding conditions of offshore wind installations is paramount at Holmatro. We employ a comprehensive approach that integrates

rigorous testing, advanced materials, continuous innovation, and a commitment to quality assurance on the following four aspects; safety, reliability, durability, and innovation.

By integrating safety first design principles, rigorous testing, high quality materials, and ongoing innovation, Holmatro ensures that our high pressure hydraulic products meet the demanding standards of safety, reliability, and durability required for offshore wind projects. This commitment supports the operational success and sustainability of offshore wind farms worldwide.

PES: What advantages does in house research, development, engineering, and production provide Holmatro in terms of quality control and responsiveness to industry needs?

AD: With in house development and production, we maintain direct oversight of the entire process. This allows for stringent quality control measures to be implemented at every stage, from raw material procurement to final assembly. By controlling all aspects of production internally, we ensure consistency in product quality and performance.

Standardized processes and quality assurance protocols are rigorously followed to meet or exceed industry standards. Research and development teams work closely with production engineers to conduct thorough testing and validation of new products and enhancements. This iterative process ensures that products are robust, reliable, and capable of withstanding demanding operational conditions.

Our in house R&D team is agile and responsive to emerging industry trends, technological advancements, and customer feedback. This agility enables us to quickly develop and adapt products that address evolving market demands and challenges. This team also gives us the ability to customize products according to specific customer requirements or unique project specifications.

Being self-sufficient in research, development, and engineering reduces dependency on external factors or suppliers, thereby accelerating the product development cycle. This agility is crucial in meeting tight project timelines and deployment schedules. The combination of a high impact learning culture, trust in each other, and joy in the workplace means that we continue to innovate and grow; and work with power.

The close collaboration between R&D, engineering, and production teams fosters innovation and problem solving. Engineers can leverage insights from production experiences to optimize designs, improve manufacturability, and enhance product performance.

This integrated approach ensures that our hydraulic tools and systems not only meet but exceed the expectations of the offshore wind industry in terms of reliability, performance, and operational efficiency.

PES: Your company prides itself on excellent service and customer care. How do you support your clients throughout the entire lifecycle of an offshore wind project, from installation to maintenance and decommissioning?

AD: Throughout every phase of an offshore wind project, Holmatro remains committed to delivering exceptional service and customer care. Our proactive approach, early involvement, innovative solutions, and continuous support help clients optimize operational efficiency, maintain safety standards, and achieve long term success in the dynamic offshore wind industry.

By prioritizing partnership and reliability, we ensure that our clients receive comprehensive support that meets their evolving needs and challenges at every stage of the project lifecycle. This ranges from our team collaborating closely with clients providing expert advice on tailored solutions to meet the project specific needs, to training on preventive maintenance to minimize downtime and extend operational lifespan.





PES: Partnership is key in your approach. How do you collaborate with developers, engineering companies, and installation contractors to tailor your solutions for specific offshore wind projects?

AD: Holmatro's partnership driven approach ensures that our hydraulic solutions are not only technically proficient but also aligned with the specific needs and objectives of each offshore wind project. Based on project requirements, we recommend or develop customized hydraulic tools and systems. This may include adapting existing products or engineering new solutions tailored to unique installation, maintenance, or decommissioning tasks.

Our in house engineering team collaborates closely with project stakeholders to optimize the design and functionality of hydraulic equipment. By collaborating closely with developers, engineering companies, and installation contractors, we tailor our offerings to optimize efficiency, safety, and operational success.

PES: What role does feedback from your partners and clients play in the continuous improvement of your hydraulic systems and services?

AD: Holmatro values ongoing feedback from project partners. We actively seek input on equipment performance, operational challenges, and opportunities for improvement. This collaborative feedback

loop informs our continuous product development efforts.

PES: As the offshore wind industry supports the green energy transition, how does Holmatro contribute to minimizing the environmental impact of its operations and products?

AD: Our commitment to minimizing environmental impact is embedded in our corporate values and operational practices. By integrating sustainable principles into our operations, product designs, and collaborations within the offshore wind industry, we actively contribute to the transition towards cleaner, renewable energy solutions. Through continuous improvement, innovation, and proactive environmental stewardship, Holmatro strives to support a sustainable future for generations to come. We have various focus points.

We employ energy efficient practices in our manufacturing processes. This includes optimizing energy use, reducing waste, and implementing ecofriendly technologies where feasible. We also prioritize recycling and responsible waste management throughout our operations. This includes recycling materials from production processes and minimizing packaging waste.

Holmatro complies with all relevant environmental regulations and standards in the regions where we operate. We strive to exceed minimum requirements by

implementing proactive measures to protect natural resources and ecosystems. Our efforts to help the world move forward resulted in an ISO 14001 certification, ISO 9001, and 45001, acknowledging our efforts to minimize our environmental footprint.

As for the offshore wind industry, back in 2019 we introduced our Remote operated hose Decoupler (ROHD) for the TP leveling and fixation process, eliminating hydraulic fluid pollution enabling reuse of the hose assembly sets. With a strong focus on designing and delivering reliable and durable products, including comprehensive service programs, we strive for the long term use of our tools and systems. We prioritize reusable solutions over sacrificial ones.

PES: With an eye on the future, are there plans afoot for further advancing your capabilities and expanding your presence in the offshore wind industry? Are there any upcoming projects or innovations that you can share with us here?

AD: Specific details on upcoming projects and innovations are often proprietary or subject to ongoing development. We continue to invest in research and development to enhance our hydraulic tools and systems. This includes advancements in remote monitoring capabilities, energy efficiency, and smart technologies for improved operational performance and environmental sustainability.

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