

Vacancy – Mechanical Engineer

About us

SolarDuck is a start-up that was founded in 2018 by a group of senior Dutch entrepreneurs with roots at Damen Shipyards. With a strong background in maritime and solar industry we are developing scalable, seaworthy technology to produce economically viable electricity offshore. Offering carbon free energy independence to megacities around the globe before 2025.

In April 2021 our first floating solar demonstrator with four platforms was installed in the Waal river; see *Figure 1*. We are now preparing for a second demonstrator of 500kW to be placed in a near shore location in the North Sea, which is planned to be installed in October 2022. This demonstrator will allow the performance of our technology to be shown on real scale and in representative environmental conditions. The SolarDuck team is growing rapidly as the development of utility scale offshore solar farms progresses. (Don't forget that floating wind energy was developed in just 5 years time!) See solarduck.tech for more information about our technology.



Figure 1: The SolarDuck platforms under tow

The role

As a mechanical engineer you are responsible for fitting together all the different components on our floating offshore solar farms. You do this work in alignment with a team of professionals from diverse disciplines and backgrounds such as mechanical, structural, hydromechanical, electrical, etcetera. You approach each new engineering challenge in a structured manner. Define the problem, split it in smaller challenges, generate concept solutions and work down if these solutions can work. You independently create, evaluate, test and optimize various concepts for the individual challenges in building our technology and quickly gravitate towards preferred options. During construction you capture as built knowledge and lessons learnt. All this work feeds into the design revisions which you systematically maintain in CAD and PLM software and design reports from which you create production drawings, manufacturing specifications and user manuals.



Key responsibilities

As a mechanical engineer you will:

- Independently make conceptual layouts for our platforms, solar farms, transportation plans, assembly equipment and assembly sites and evaluate and trade-off whether they comply with all the requirements and functionalities and are reasonably optimal.
- Maintain the latest revision of the drawings and designs in your CAD models and PLM software based on discussions with the engineers from the other disciplines.
- Maintain design documentation explaining and justifying choices, designs and uses.
- Create and check production drawings
- Organise and witness component tests where needed to establish confidence in the designs
- Be up to date regarding developments in our wider network of suppliers regarding fasteners, components, production methods etcetera to support continuous improvement.

Skills & Experience

- MSc or BSc degree in structural, mechanical, maritime or offshore engineering
- At least 5+ years' experience of which 3+ in a similar role
- Experience and good skills with multiple 2D and 3D CAD software packages
- Experience with making and checking 2D drawings, manufacturing specifications and maintaining CAD revisions in PLM software
- Understanding of strength and stiffness and assembly/transportation/production efficiency and cost
- Pre: Skill to independently perform strength calculations. (E.g steel, bolts, springs, dampers)
- Adopt industry best practices where they suffice; invention when this offers many benefits
- Being hands-on and pragmatic, have strong understanding of geometrical challenges and have a solution for whatever challenge comes your way :)
- Experience with standardisation, aluminium extrusions and electrical installations is a pre

What we offer

- Be part of a fast growing start-up team that strives for excellence and that is currently already making a positive and lasting impact on the world and the way human kind harvests energy.
- A competitive salary
- Certificates of shares SolarDuck
- Annual leave of 24 days, Travel allowance
- Partially work from home
- Time and resources to attend courses, workshops, networking events and R&D projects

Contact

Excited and or more questions? Please contact us at career@solarduck.tech.