

## MECHANICAL & STRUCTURAL NAVAL ENGINEER

**Reference** : CH\_JOB\_26\_03\_MECH\_STRUCT

Publication Date: 2026-01-16

Contract : Full-time, On-site

Location : Valencia, Spain

Start Date : Q1–Q2 2026

Experience Level: 4+ years

Education : MSc or PhD

**Apply to** : [jobs@caponnetto-hueber.com](mailto:jobs@caponnetto-hueber.com)

### ABOUT CAPONNETTO HUEBER

Caponnetto Hueber (CH) is a leading engineering and innovation firm specializing in high-performance hydrodynamics, foiling technologies, and smart maritime systems. Acting as both a scientific laboratory and an engineering consultancy, CH delivers advanced engineering services and performance-driven design solutions for yachts, ships, and autonomous vehicles, from concept development to prototype validation.

Based in the Marina of Valencia, Spain, CH combines a rigorous scientific approach with state-of-the-art CFD, optimization, and simulation tools. The company supports clients across the nautical and maritime sectors with advanced expertise in naval architecture, propulsion systems, energy efficiency, fluid dynamics and performance prediction, with a strong focus on innovation, performance, efficiency, and sustainability.

CH has participated in the last six consecutive America's Cup campaigns, contributing to victories in 2010 and 2013, and collaborates with top-tier shipyards, design offices, and marine innovators worldwide. Its work spans from high-performance foiling yachts to wind-assisted ships, and from racing sailing yachts to autonomous marine vehicles, shaping the future of marine design through innovation and applied research.

#### Main Services:

- Hydrodynamics and Computational Fluid Dynamics (CFD)
- Naval architecture, including hull, appendage, and hydrofoil design
- Naval engineering, prototyping and testing
- Propulsion, energy-saving devices and energy-harvesting systems design and optimization
- Simulation and Performance Predictions for sailing yachts, wind assisted ships, motor yachts and autonomous marine vehicles.

#### Main R&D activities:

- High-efficiency hydrodynamic concepts for yachts, ships, and USVs (including hydrofoils)
- Wind Propulsion Technologies: performance and emissions prediction methods and tools
- AI-assisted design, simulation and performance prediction tools
- Smart and autonomous vessel systems

Caponnetto Hueber is expanding and looking to integrate motivated, committed professionals eager to work in a competitive, high-tech, and impactful international environment.

## THE ROLE

### Description:

We are looking for a **Mechanical & Structural Naval Engineer** to join our technical team and contribute to the development and engineering of novel and advanced marine structures and systems.

The role sits at the intersection of naval engineering, mechanical systems and structural engineering, and involves close collaboration with the engineering and naval architecture teams. You will actively contribute to innovative projects ranging from high-performance sailing, motor and foiling yachts as well as autonomous vehicles.

Depending on experience, the position may progressively evolve toward increased technical responsibility and coordination within specific projects.

### Key Responsibilities:

- Contribute to design and R&D activities, developing innovative mechanical and structural solutions in close collaboration with the Technical Director, naval architects, and engineering teams
- Define system architectures and specifications, perform feasibility studies, and propose robust technical solutions from concept through integration
- Perform structural pre-dimensioning and FEM/FEA analyses to ensure integrity, reliability, and compliance
- Design, analyse, and integrate mechanical and structural systems, including appendages, hydrofoils, control elements, and propulsion components
- Act as the technical interface between external consultants and the internal engineering team, coordinating and reviewing work in mechanical systems, hydraulics, mechatronics, structures, and FEA
- Collaborate with CFD engineers on Fluid–Structure Interaction (FSI) analyses to optimize performance and structures
- Contribute to certification processes and rules compliance in coordination with naval architects and project stakeholders
- Coordinate and technically support suppliers and manufacturers during construction, assembly, testing, and validation
- Support prototyping and on-the-water validation of systems and structures

## CANDIDATE PROFILE

### Background:

- **Mechanical, Structural, Naval, or Aeronautical Engineer**, holding an MSc or PhD in Mechanical Engineering, Naval Engineering, Aeronautical Engineering, or a closely related field.

### Experience:

- **Minimum 4 years of professional experience as a naval, mechanical, mechatronics or structural engineer**
- Proven experience in racing, sailing, foiling, or motor yacht engineering, including systems design, systems integration, and structural design and analysis,

- or equivalent experience in related industries such as wind energy, automotive, aeronautical, or autonomous vehicles
- Hands-on experience with the analysis, design, and engineering of metallic and/or composite structures, including marine structures, appendages, and propulsion-related systems

#### Technical Requirements:

- Proven experience in mechanical and or structural design and analysis
- Strong background in systems and structural engineering, including dimensioning and integrity assessment of yacht or marine components
- Experience with structural pre-dimensioning and FEM/FEA analyses
- Proficiency in 3D modelling and 2D drafting

#### Additional Valuable Skills:

- Experience in the yachting, racing, or maritime transportation industries
- Solid knowledge of naval architecture and marine engineering
- Proficiency with FEA/FEM solvers for structural analysis
- Experience with aeroelasticity, Fluid–Structure Interaction (FSI), or co-simulations
- Knowledge of control systems and automation
- Experience with certification processes and applicable rules and regulations
- Knowledge of manufacturing processes including composites and metallic structures, and additive manufacturing
- Hands-on experience in composite construction, boat building, or model engineering; a practical, hands-on engineering mindset is highly valued
- Experience with construction follow-up, supplier coordination, and project management

#### Other Requirements:

- Fluent English (working language)
- Italian, French or Spanish fluency is a plus.
- EU residency or valid EU work permit
- Willingness to relocate to Valencia, Spain
- Proactive, organized, rigorous, autonomous and flexible.
- Open-minded with the ability to adapt to innovate.
- Passion for technology, yachts, the ocean, and water-based activities

CH values candidates who want to make a meaningful impact in the maritime and nautical sectors by contributing to high-performance, innovative, and increasingly sustainable marine solutions.

## HOW TO APPLY

If you are willing to be part of an international group who aim to lead the innovation, the technology development and the transformation of the nautical and maritime industries towards more efficient, cleaner and more sustainable industries, please contact us at **jobs@caponnetto-hueber.com** using the offer reference in the title and include your **CV and references in English**.