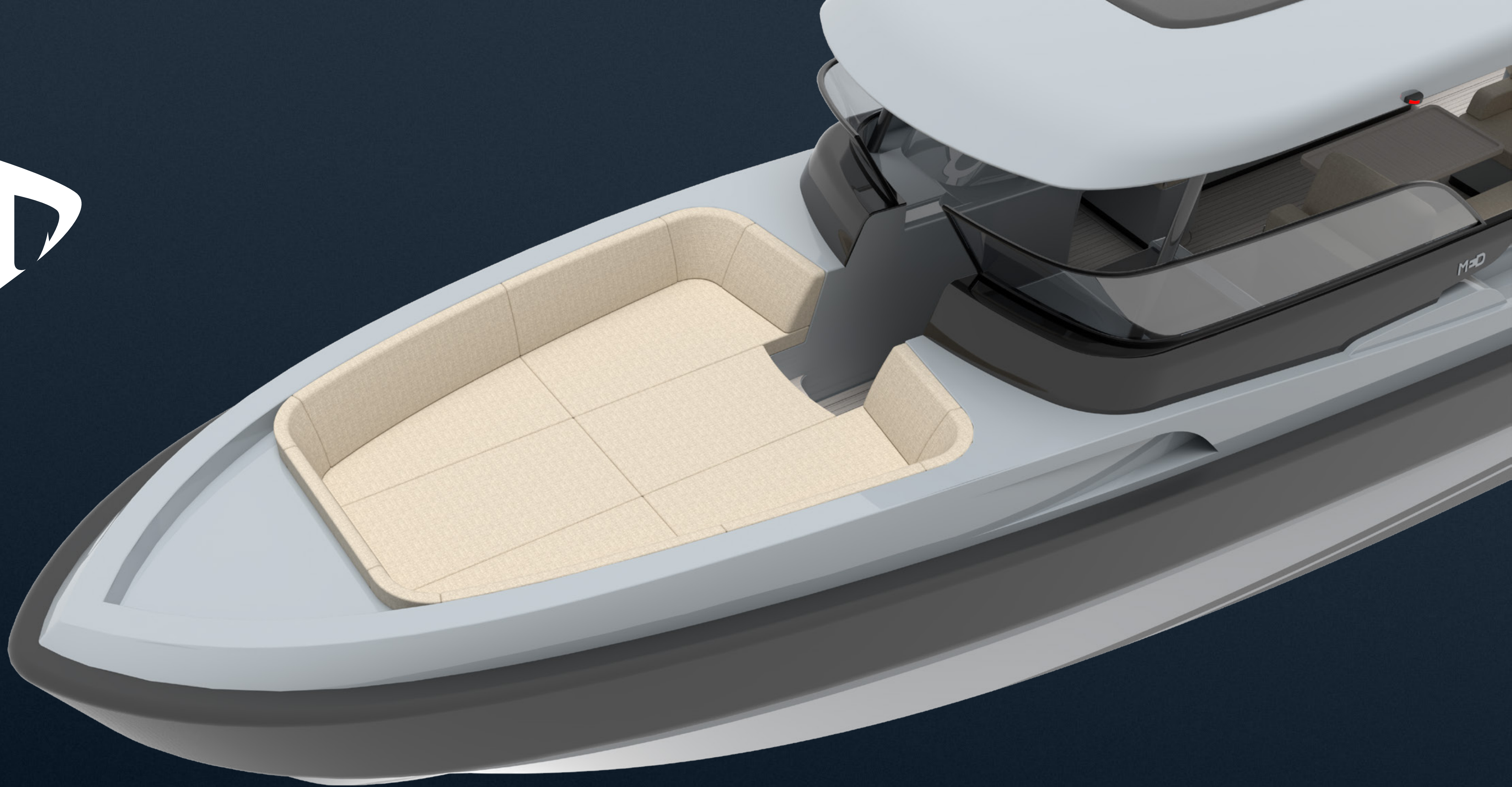




Project H1



The history



MED

MED DEFENSE

The **MED Defense** brand has the purpose of providing top-level vehicles to law enforcement and public safety forces.

SALES DATA

Since 2015, MED DEFENSE has supplied over **400 units** for operational use in:

- Carabinieri
- Firefighters
- State Police
- Finance Police (Guardia di Finanza)
- Comsubin
(Underwater and Incursion Command Group)
- Port Authority
- Coast Guard

The Manifesto

The **H1 project** was born in response to the growing demand for sustainable solutions in the nautical sector, without compromising aesthetics and performance.

In this scenario, the collaboration with **TESYA** naturally took place, which, thanks to its expertise in hydrogen technologies, fuel cells, and advanced energy storage systems, proved to be the ideal partner for the development of an exclusive boat capable of ensuring reliability and safe use.

Customizable according to the owner's needs with a wide range of options,

H1 represents a concrete answer to the environmental challenges of the sector, offering an ecological and cutting-edge alternative, capable of combining leisure boat features with exclusive and distinctive elegance.



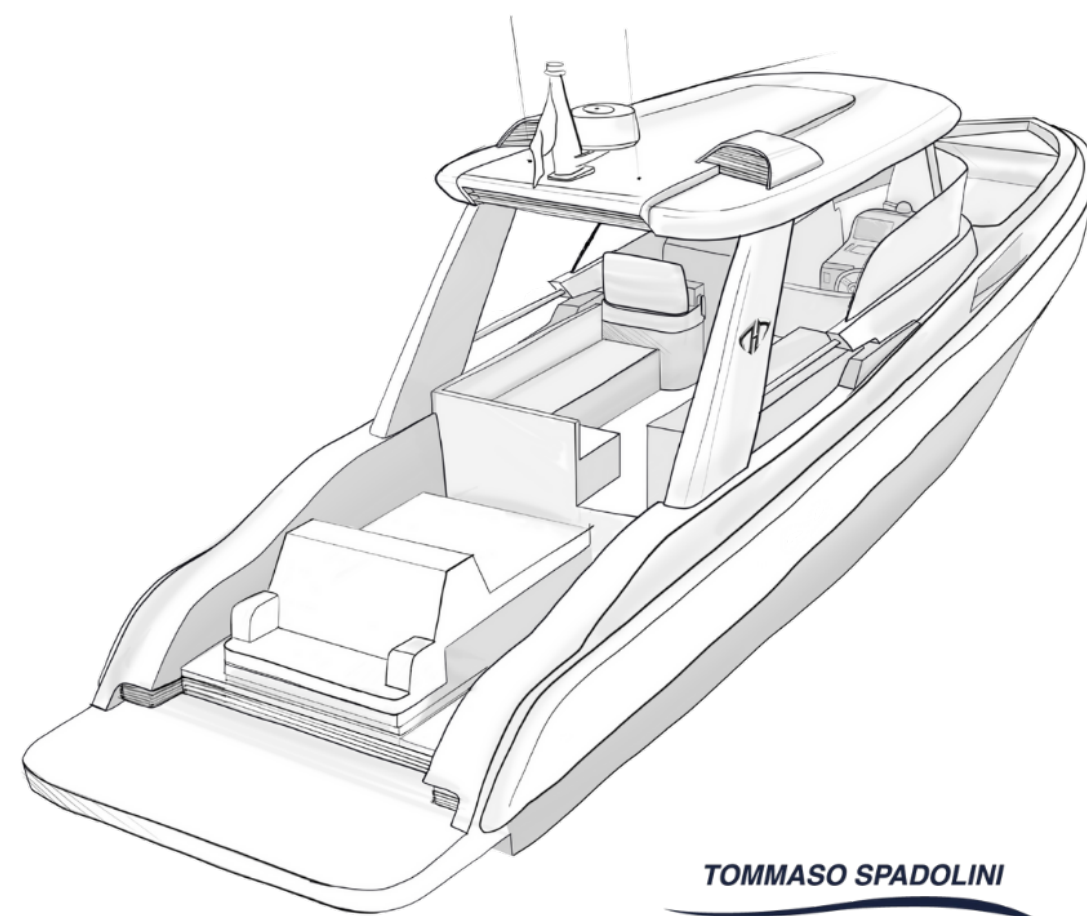
Logo Identity

The symbol consists of a stylized representation of a bow in navigation combined with a trident, a powerful symbol of the sea, and features the **H** of hydrogen prominently at the center, representing the heart and driving force of the vessel.

The two strokes of the **H**, finally, symbolize the wake of the bow. It embodies innovation, technology, and above all, a distinctive design.



The first premium hydrogen-powered leisure tender, soon to be certified



A concrete step in sustainable marine innovation; combining cutting-edge technology and ecological propulsion, this vessel ensures excellent performance and exemplifies the concept of “navigation in respect of the environment”.

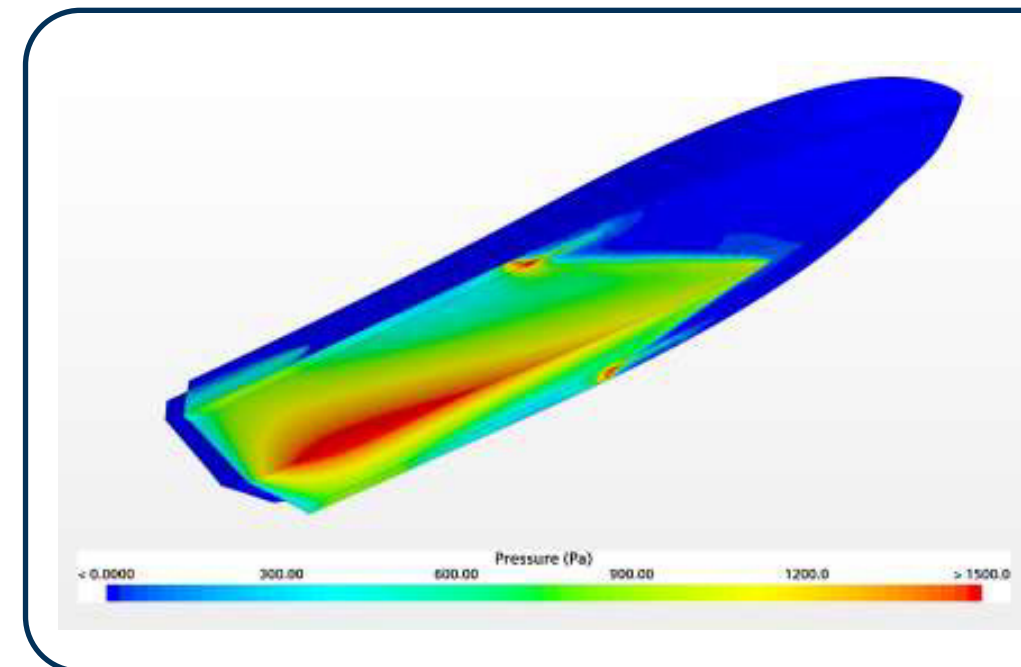
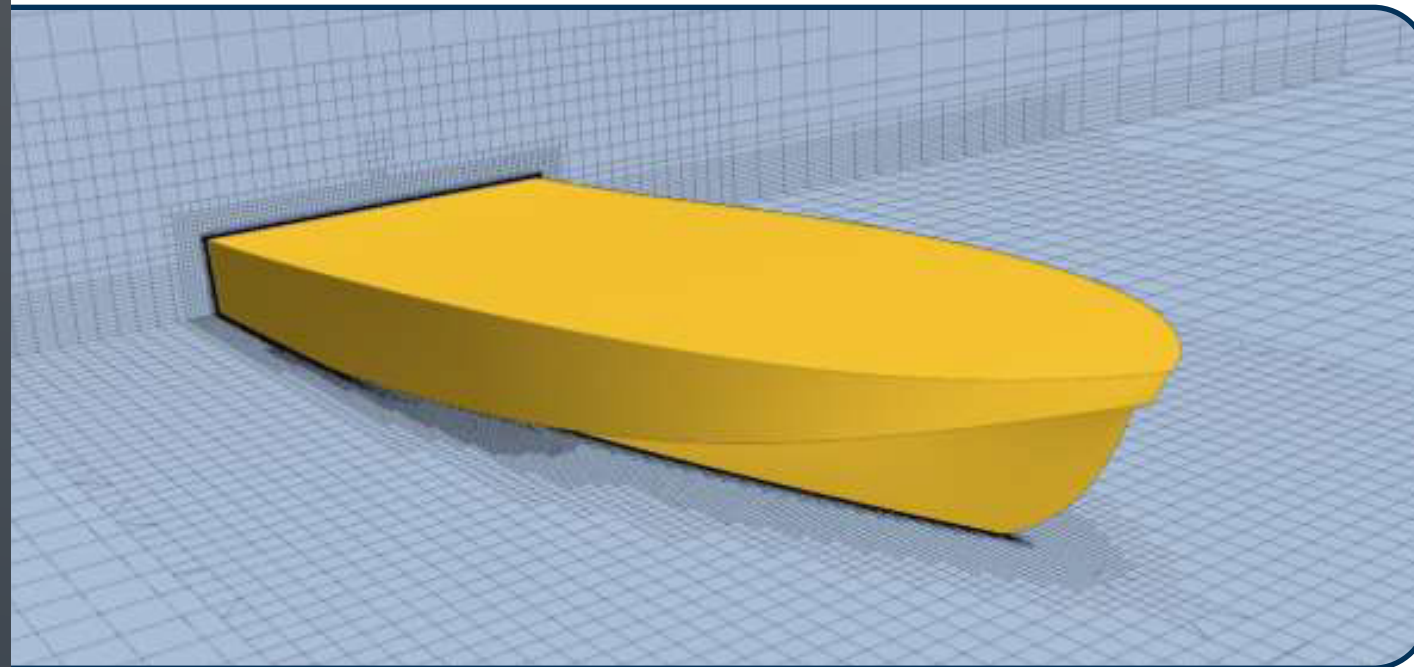
Hydrogen can play a crucial role in SECA areas, as it is a zero-emission fuel that enables full compliance with environmental regulations, while also providing a sustainable and long-term solution for the decarbonization of maritime transport.

12 meters Tender Powered by TESYA Fuel Cell

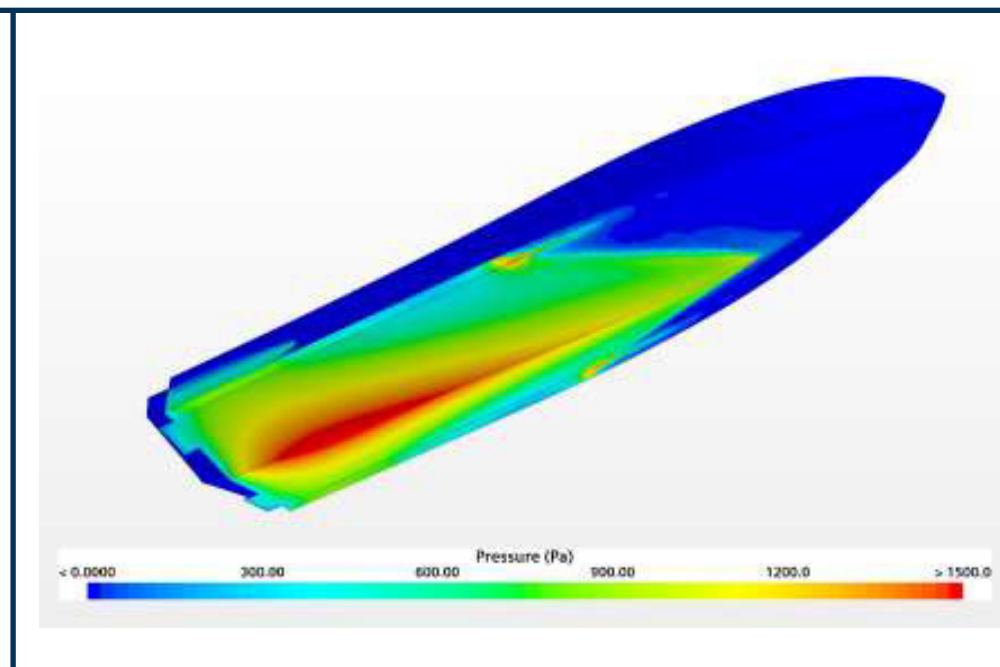
- Cruising speed 18-22 knots
- Max speed 25-35 knots
- Range 40-50 NM
- Efficiency and Reliability
- Wide range of optional
- Delivery within 8 months

Technical studies

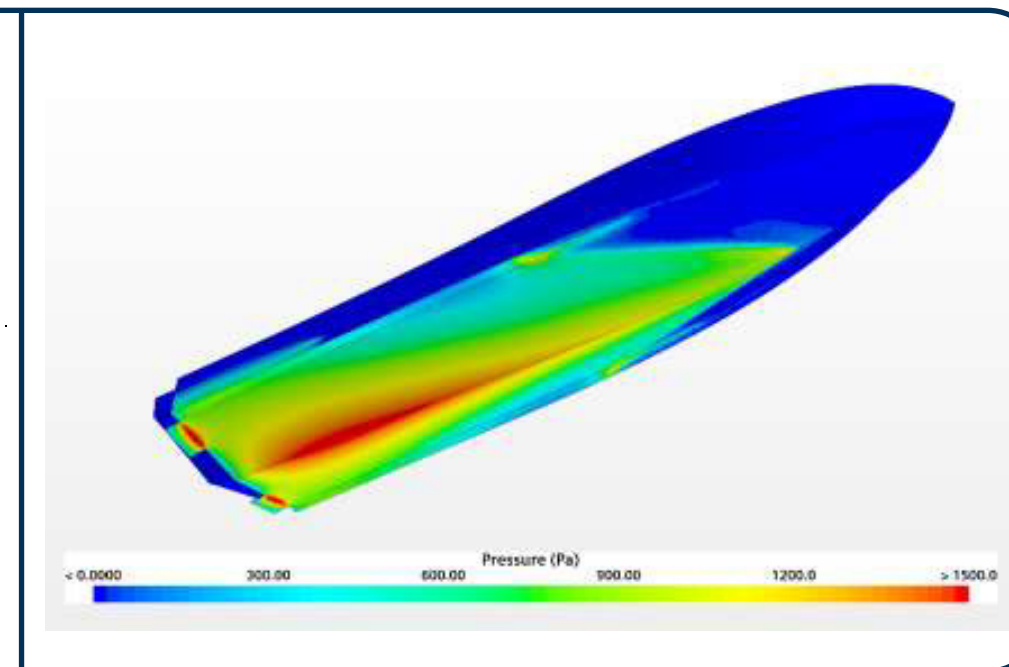
Distribuzione delle pressioni per la carena con e senza flap a 15 kn



No Flap



Flap a 0 gradi



Flap a 6 gradi



Create your H1

The expression of your identity on the sea



The result of the vision of **Gruppo MED** and the fuel cell technology developed by **TESYA**, the model is immediately available for production.

The innovative hydrogen propulsion system, successfully tested in professional settings, guarantees a range of over 50 nautical miles at cruising speed.

It combines the performance and reliability of **MED DEFENSE** vessels with the elegance and comfort ideal for leisure boating.

Each unit allows access to protected marine areas, normally off-limits to traditional boats.

Thanks to the consolidated experience of **Gruppo MED**, it is delivered within eight months from order, with a propulsion system designed by **TESYA** and tested over more than **4000 miles**.

Project H1

STANDARD

HULL AND PERFORMANCE

ALUMINUM HULL WITH MILITARY DNA, Hull design optimized for performance with this type of propulsion; efficiency and low planing speed are guaranteed by the hull design to obtain the least possible resistance. A robust aluminum hull with precise stability calculations ensures maximum safety in all weather conditions.

ZERO EMISSION MODE PROPULSION

The combination of fuel cells and rechargeable batteries that power electric motors has made it possible to obtain an efficient system capable of developing over 400Kw without emissions

EXCLUSIVE AND FUNCTIONAL DESIGN

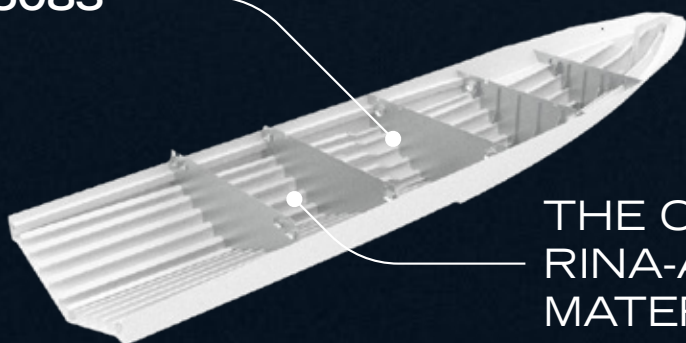
The hybrid fender with a reduced section optimizes deck space, increasing the available interior width and ensuring greater comfort for guests, while also providing ample storage space for onboard toys. Ergonomic aluminum seats, aft swim platforms and refined cushions offer an elegant and comfortable environment. The plumbing system, equipped with shower, sinks and toilet, guarantees convenience; the integrated refrigerator and hob add a touch of exclusivity.

TECHNOLOGY AND CUSTOMIZATION

A WIDE SELECTION OF ELECTRONIC OPTIONS ENSURES A BROAD RANGE OF CHOICES TAILORED TO EACH OWNER'S PREFERENCES

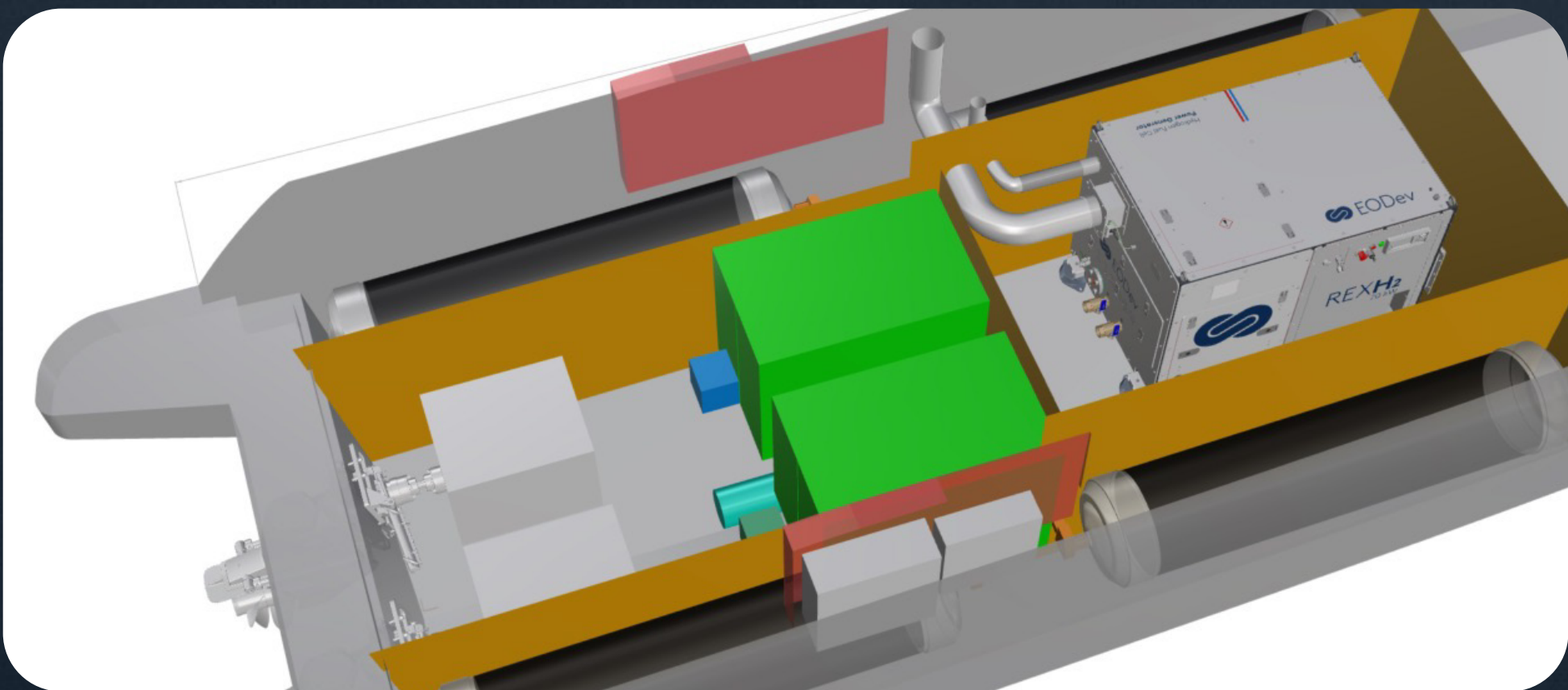
ALUMINUM 5083

strenght ,
flexybility,
reciclability,
corrosion
resistance



THE CERTIFIED AND
RINA-APPROVED
MATERIAL.

ZERO EMISSION MODE PROPULSION



EQUIPMENT AND PERFORMANCE:

MOTORE / ENGINE (ELECTRIC ENGINES):	FB or EFB
POTENZA MAX @ MAX GIRI MINUTO / MAX POWER @RPM:	2x 220 KW
CATEGORIA DI PROGETTAZIONE PREVISTA/ INTENDED DESIGN CATEGORY CE -Mod. A1:	B/C
LUNGHEZZA FUORI TUTTO / LENGHT OVER ALL:	12,6 m
LARGHEZZA FUORI TUTTO / BEAM OVER ALL:	3,2 m
N° MASSIMO PERSONE / MAXIMUM N° PEOPLE:	10 / 16
CAPACITA' SERBATOI IDROGENO / HIDROGEN TANK CAPACITY:	TOT 32 Kg
CAPACITA' SERBATOIO ACQUA / WATER TANK CAPACITY:	100 lt
VELOCITA' DI CORCIERA / CRUISE SPEED:	18 - 20 kn
VELOCITA' MASSIMA / MAX SPEED:	25 - 35 kn



Hydrogen Readiness Market

Among the pioneering projects, **NatPower H** stands out, having launched the creation of a network of refueling stations dedicated to sustainable boating. Initiatives like this not only make hydrogen-powered vessels more accessible, but also help to steer the entire motor boating sector toward a cleaner, more responsible, and technologically advanced future.

NatPower 



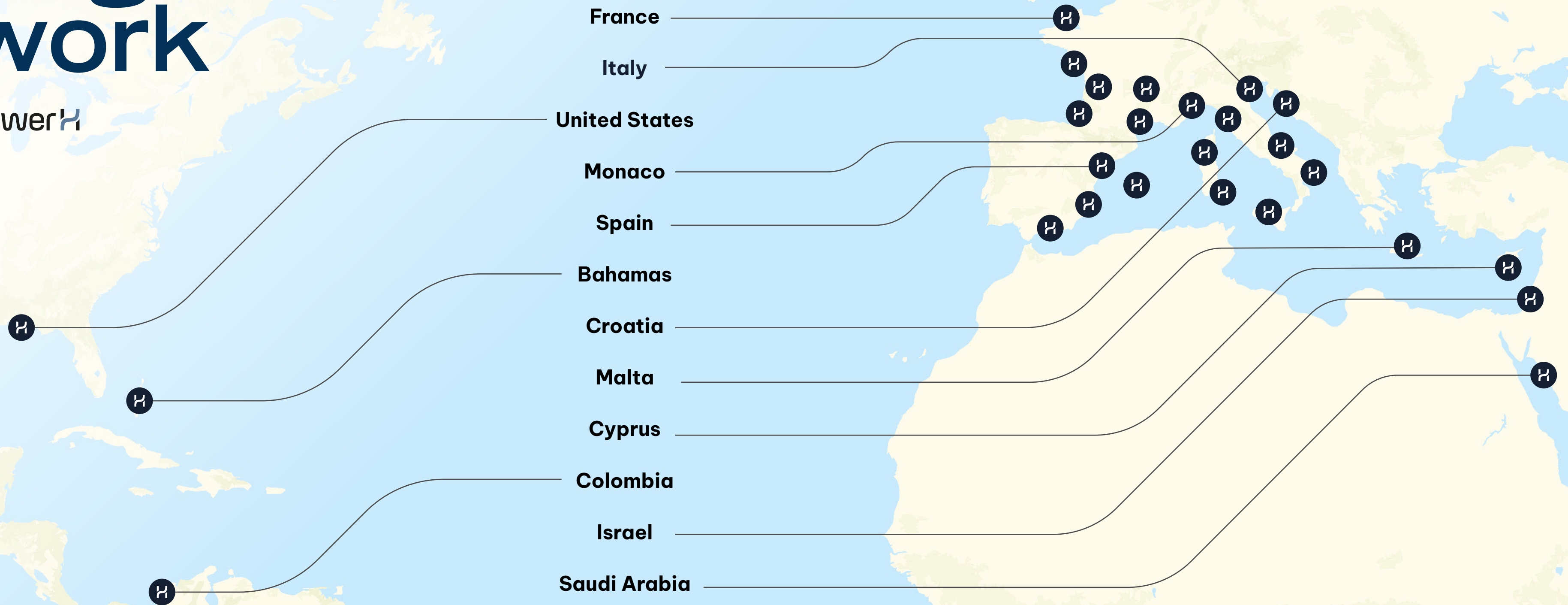
Refueling Points

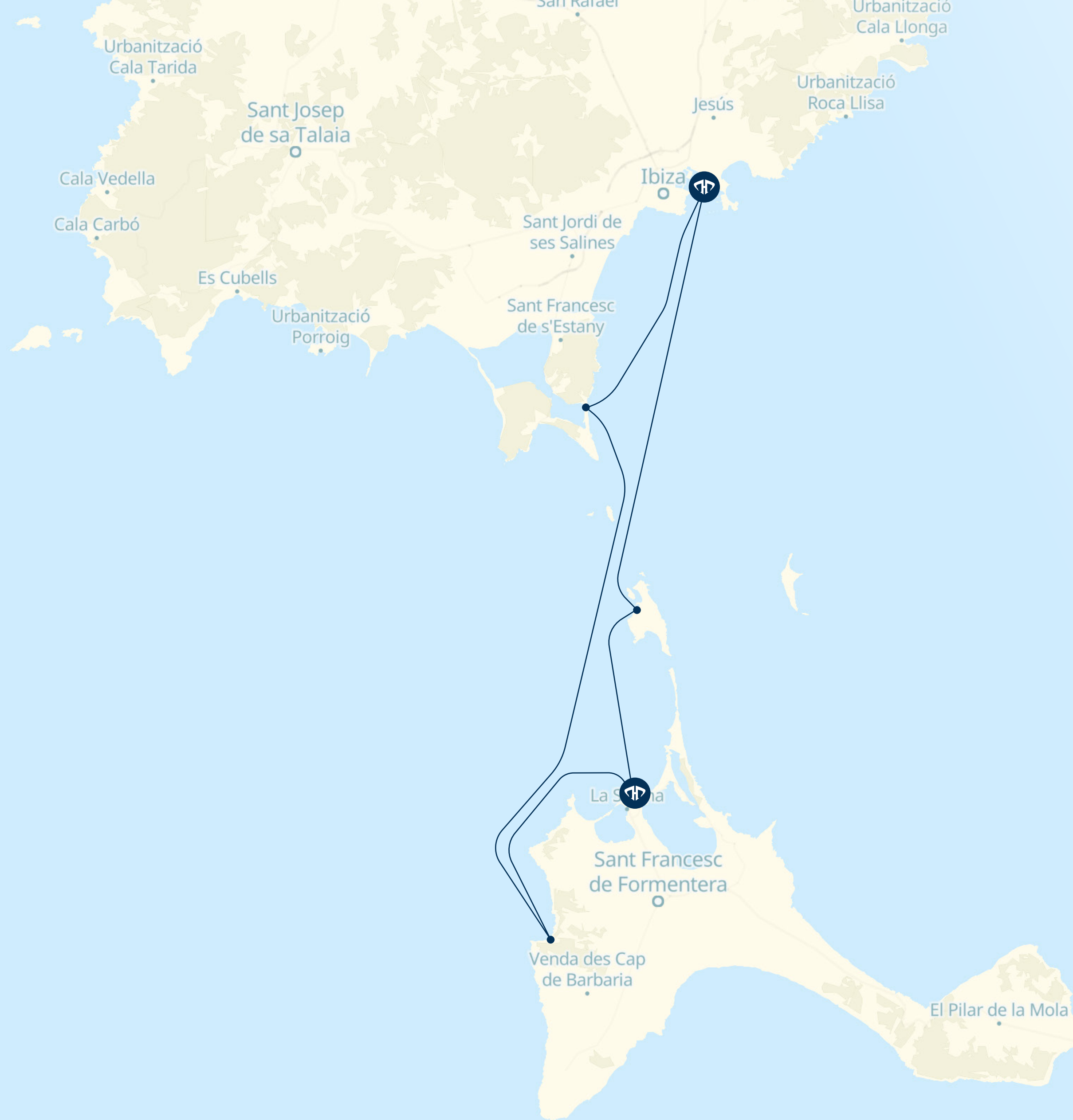
Powered by NatPower 



Hydrogen Network

Powered by NatPower





Trip Plan Ibiza

- Ibiza Harbor - Les Salines Natural Park - Saona Beach (14 NM)
- Hydrogen battery charging (1 h)
- Saona Beach - Formentera Harbor (4 NM)
- Hydrogen battery charging (1 h)
- Formentera Harbor - Espalmador Island - Ibiza Harbor (12 NM)

Trip Plan Maddalena

- Porto Cervo - La Maddalena (9 NM)
- Hydrogen battery charging (30 min)
- La Maddalena circumnavigation and return to Porto Cervo (18 NM)





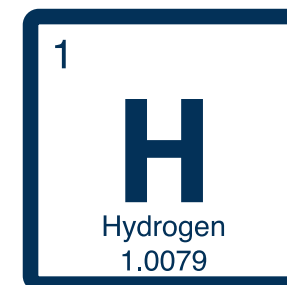


H2 Energetic & Propulsion System

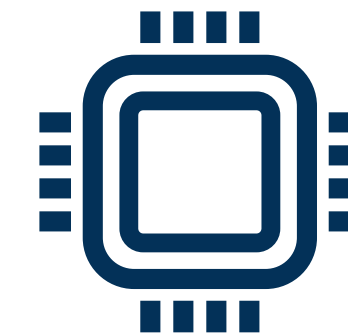
Innovative power solution for 12-meter boat.
Integrates hydrogen fuel cell, batteries, and electric motors.



4000+
nautical miles
sailed

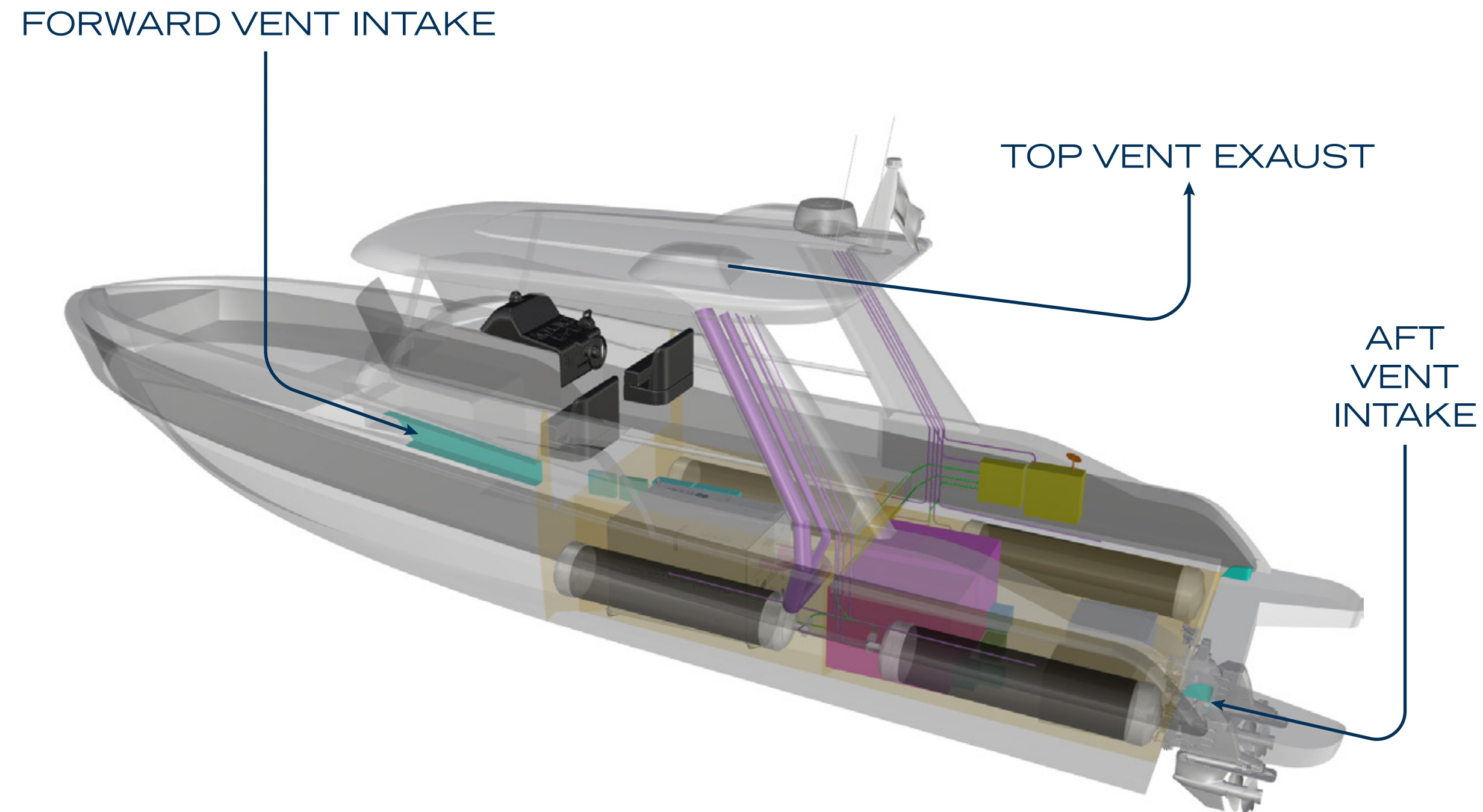


1 000+
kg of H2
consumed



200+
hours of system
live monitoring

Boat Requirements



Cruising Speed

18 - 22 knots

Maximum Speed

25 - 35 knots

Range

40 - 50 NM

Modularity

H2, full-electric, plug-in hybrid

System Overview

~3500
H2 KIT
WEIGHT



Energy Storage

- 4 tanks → 32 kg H₂
- Battery Pack → 250kWh

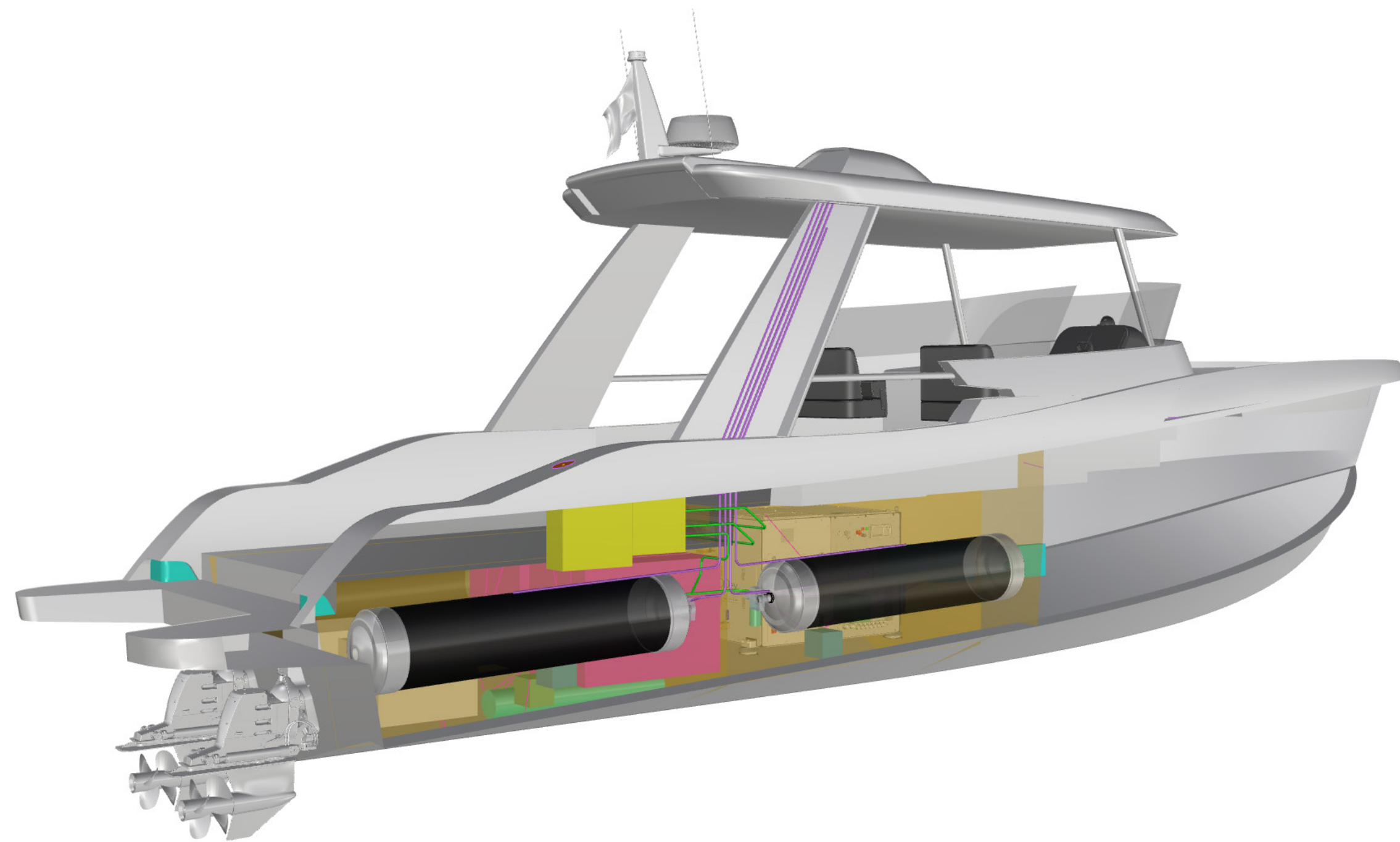
Power Generation

- 70kW Hydrogen Fuel Cell
- 480kW + Batteries

Propulsion

- 2 x 220kW Electric Motor

Boat configuration



Solar Panels

+1,5 kWp

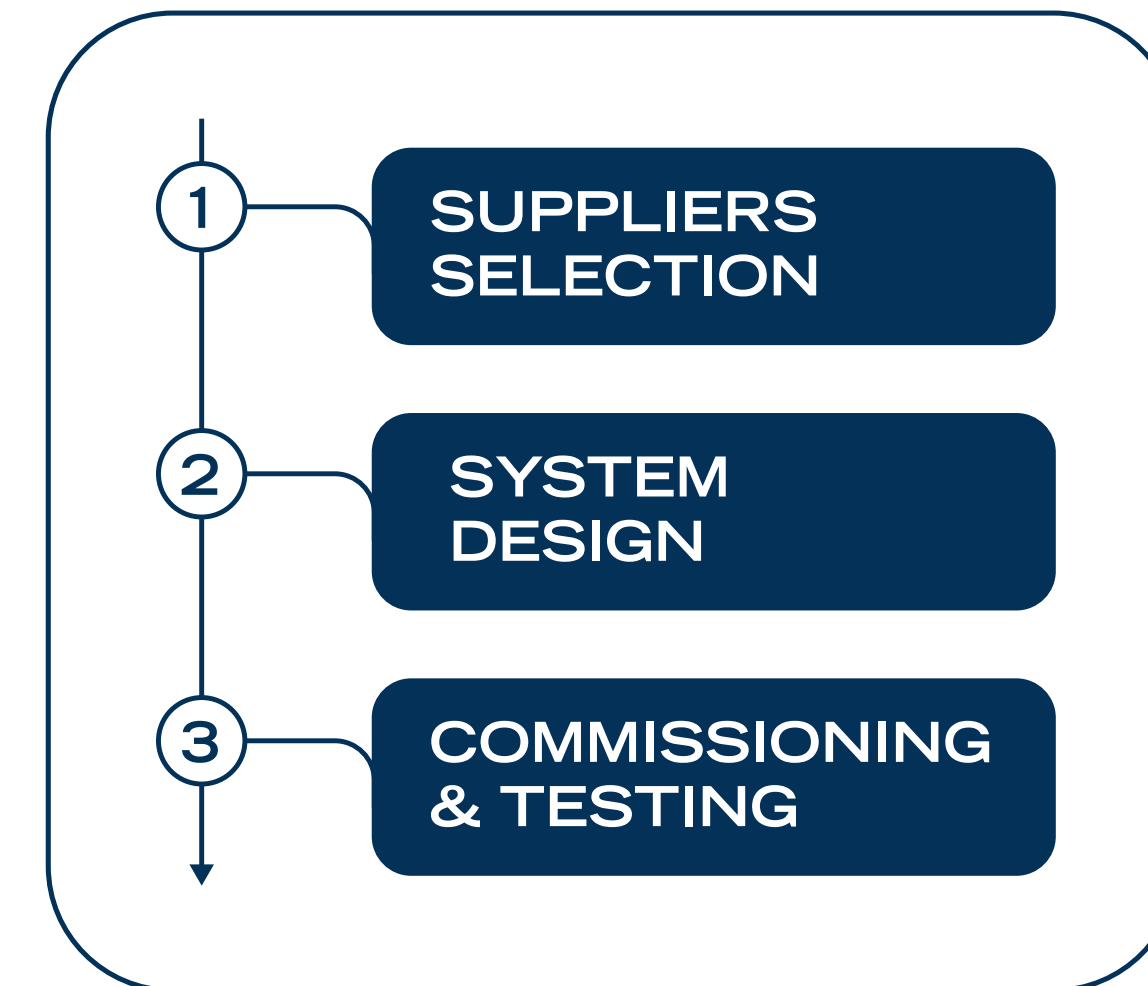
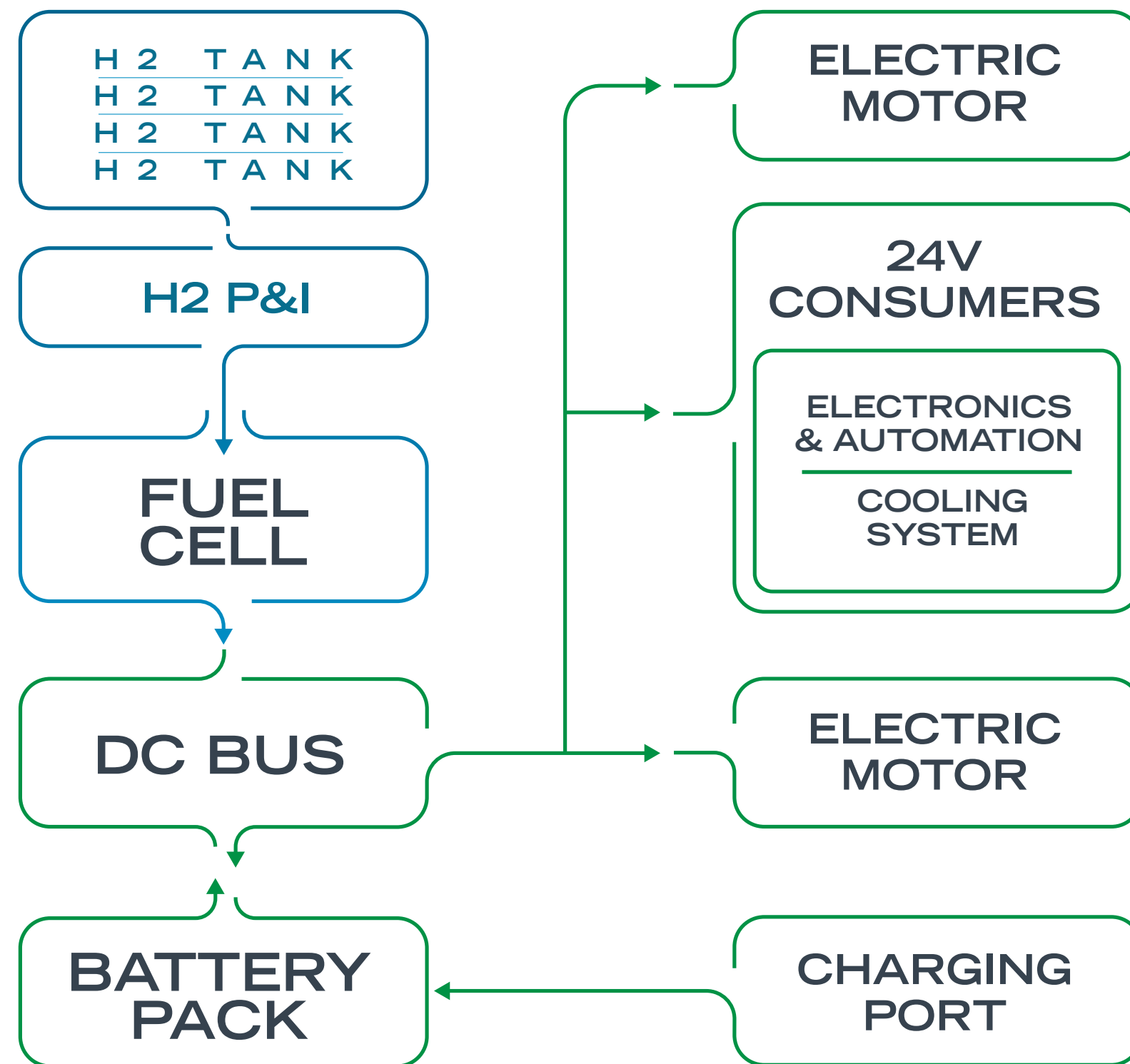
Batteries

+4 NM per battery

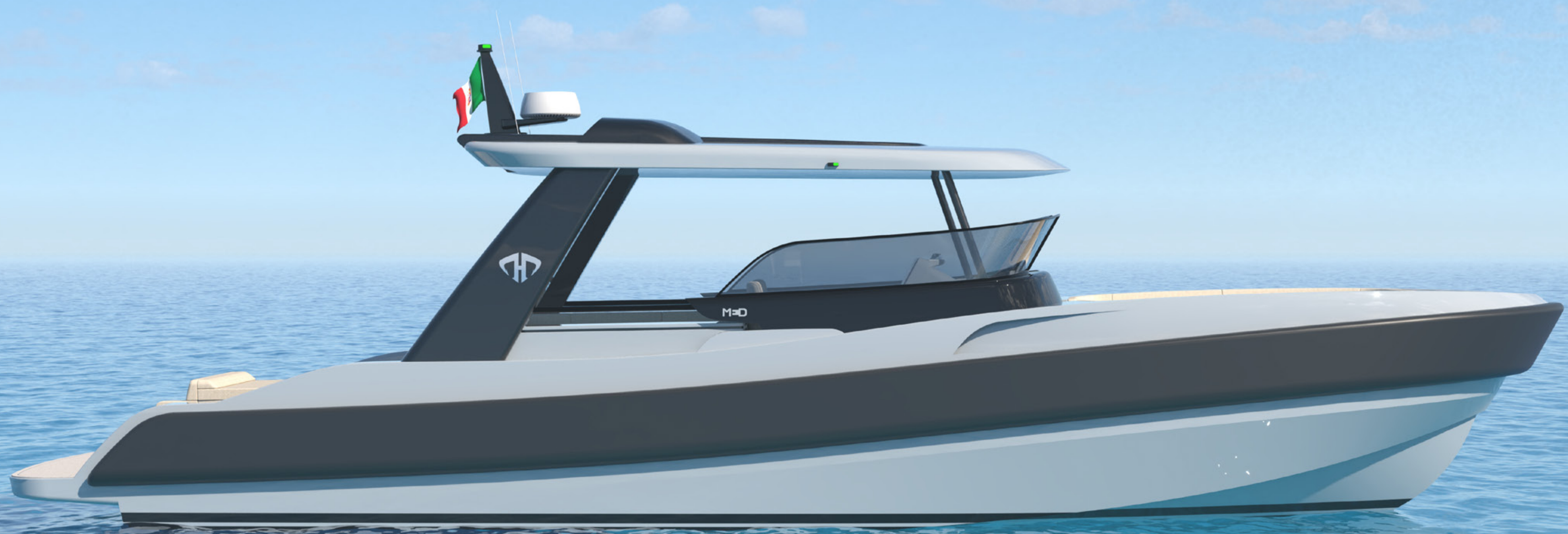
Tank

+7 NM per tank

TESYA Integration



TESYA 





M-D