






Our field of expertise

Detailed engineering

Saltwater delivers class-compliant, production-ready ship designs with precise 3D models and clear drawings for seamless construction.

What sets us apart?

-  Saltwater turns ship designs into production-ready engineering packages.
-  We create high-precision 3D models of structures, systems, and outfitting elements.
-  We deliver clear workshop drawings, detailed isometrics, and optimized material lists.
-  All designs meet class standards and support digital workflows.
-  We collaborate with shipyards to prevent issues and ensure smooth construction.



From concept to construction, Saltwater turns digital designs into precise, production-ready solutions. Seamless, efficient, and built for reality.

SALTWATER: PRECISION FROM START TO FINISH

Detailed engineering is the final design stage before construction begins. It translates the basic engineering into a complete, production-ready package with exact specifications, cutting files, welding preparations, and all necessary documentation to support efficient manufacturing, installation, and integration.

Saltwater's detailed engineering ensures every component fits, functions, and is ready for fabrication. We focus on buildability, compliance, and smooth production by delivering:



High detailed 3D modeling

Including hull structure, outfitting, piping, space allocation for HVAC and cable trays, all coordinated for clash-free integration



BOMs and procurement support

Optimized material lists aligned with the build strategy for smooth logistics and planning.



Production documentation

Clear and yard-ready workshop drawings, isometrics, cutting files, and installation guides



Close collaboration

Continuous coordination with shipyards, suppliers, and class societies to reduce risks and ensure flawless execution

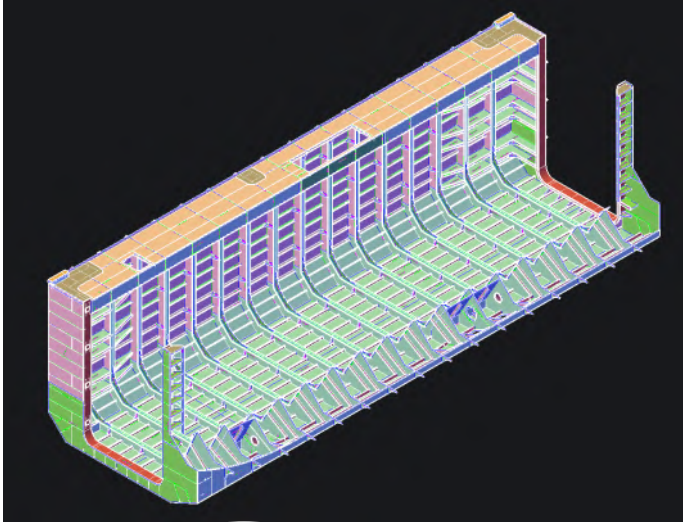


Class and digital integration

Designs fully aligned with classification requirements and compatible with digital tools like PLM and ERP

TURNING COMPLEX IDEAS INTO BUILDABLE REALITY

Saltwater is actively contributing to the Fehmarnbelt Tunnel, the world's longest immersed tunnel currently under construction between Denmark and Germany. Opening in 2029, this 18 km rail and road connection will significantly enhance Europe's cross-border mobility. For the contractor FLC, Saltwater provided detailed engineering for the maintenance barge, a key vessel supporting the placement and servicing of tunnel elements. Our scope included the design and engineering of the limpet dam and its watertight door, drydock-like structures on both sides of the barge, and various topside outfitting elements such as walkways, railings, container grillages, lashing points, and crane support systems.



We transform complexity into precision-built solutions, combining structural expertise and innovation on projects like the Fehmarnbelt Tunnel.

Beyond structural outfitting, Saltwater also engineered several critical mechanical systems for the barge, including large hydraulically operated drydock doors and precision hoisting frames. Both were designed for strength, watertight reliability, and accurate movement under demanding conditions. Using 3D modeling and detailed engineering software, all welds, tolerances, fits, and fabrication data were defined to ensure seamless production and installation. This combination of structural and mechanical expertise enabled a safe, functional, and user-friendly work platform, demonstrating Saltwater's capability to deliver complex marine engineering solutions from concept to fabrication-ready design.



**Are you facing a challenge?
Get in touch with one of our consultants**

Partner up with Saltwater

Everything Is Possible



Saltwater provides customized engineering solutions for the naval and offshore industry. Understanding your challenges enables us to deliver practical, quality products and clever solutions.

Mission

Our mission at Saltwater is to engineer and develop maritime solutions that reduce the environmental impact and support a low carbon footprint. We are committed to provide innovative and efficient engineering services that meet the needs of our clients while guaranteeing safety and quality.

Vision

At Saltwater, our vision is to be a leading force in the maritime engineering industry, striving for positive change through socially responsible practices. We envision a future where our engineering solutions help to create a healthier and more sustainable world. We are committed to ship conversions and new vessel designs, encouraging a culture of young innovators and collaborating with our partners and clients to achieve our shared goals.

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