




## Our field of expertise

# System integrations

At Saltwater, system integrations are defined as the design and the associated implementation of a system.

## What sets us apart?

-  Strong partnerships ensuring seamless project execution
-  The design process is shaped through collaborative input from end-users
-  Our standard design flow typically transitions from large to small diameters
-  We work exclusively with industry-standard software
-  Final deliverables conform industry standards





**Saltwater Engineering specializes in seamless system integration, ensuring smooth and efficient operation across various marine applications.**

## SEAMLESS INTEGRATION

Saltwater's primary focus in System integrations involves the design, assembly, and implementation of a system or multiple systems within a vessel or unit. Saltwater's engagement with different systems highlights a broad spectrum of projects such as: Steering arrangements, propulsion arrangements, switchboards arrangements, HVAC diagrams, cooling water arrangements, stabilizer arrangements and many more.

One system Saltwater frequently integrates is a ballast water treatment system. Various components are supplied by different vendors. Saltwater is responsible for the design of the system and seamless integration into the vessel, including the different interfaces from other disciplines. Saltwater provides space reservation

for electrical components, cable trays for the required wiring. When it comes to piping, Saltwater can deliver a comprehensive service, typically utilizing a design strategy that transitions from larger to smaller pipe diameters in the configuration of the system.

## PROVEN TRACK RECORD

Saltwater's involvement with various systems showcases a diverse range of projects. In essence, it entails integrating a system into an already established setting. Recently, for a major offshore operator, an extensive spread on a ship was installed including pipe routing and cabling while providing a comprehensive design for the entire spread, encompassing both hydraulic and electrical aspects. The approach involved designing a skid that accommodates these components, ensuring seamless integration with the existing environment by adapting connections accordingly.

Saltwater took on the task of designing a new aft ship for a major offshore geotechnical company, showcasing yet another noteworthy project. Upon receiving all individual components, Saltwater strategically determined the position of each element, orchestrating the integration process for optimal functionality.





## STANDARD WORKFLOW

Saltwater consistently aims to engage the end user in the system development process. This is based on the understanding that, without this involvement, feedback regarding preferred system configurations often arises later. Adjusting at that stage can pose significant challenges.

The technical challenge lies in coordinating information among various suppliers. The primary hurdle involves extracting specific details to fully integrate the system. Emphasizing a customer-centered strategy in all undertakings, Saltwater strives for exceptional quality in every facet of its services. With the belief that this holistic approach not only meets but surpasses expectations.



### Step 1

Initially, we collect data regarding the physical environment where the system will be deployed, gathering details like dimensions, capacity etc.



### Step 2

Utilize this data to formulate an initial system design, taking into account the spatial constraints inherent to the installation environment.



### Step 3

Convert the preliminary design into a 3D model to facilitate the installation process and resolve any potential clashes.



### Step 4

Subsequently, create structural drawings for the system and the skid on which it will be installed.



### Step 5

If re-routing occurs during the integration of the system, the drawings can be updated to reflect the as-built configuration.



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.

## **Saltwater Engineering B.V.**

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