



# Innovation, Passion & Reliability

Delivered Successful Ship Designs for more than 50 years

# Welcome to the future!

**FKAB Marine Design** has delivered successful ship designs for more than 50 years. Regardless of the size of the project, our ideas grow out of technological knowledge combined with an understanding of the changes in the outside world and new shipping needs.

In 1961 Gustaf Mattsson established his marine design company in the harbour town of Uddevalla on the west coast of Sweden. Today FKAB operates all over the world and has more than 50 years of experience of maritime design.

Looking to the future, we see new challenges and possibilities everywhere for the shipping industry. Globalization, new technology and new demands for sustainable shipping create a whole new scenario for marine technology and design. FKAB Marine Design is in the forefront.

What we offer is advanced and wide skills in design and project handling for marine construction and other marine undertakings. Our offices in Sweden and China are strategically placed for delivery of a complete range of marine consultancy services.

We are certified according to ISO 9001:2008 and ISO 14001:2004

## Contact

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FKAB Marine Design is a member of the Swedish Mattsson Group of Companies.

The Mattsson Group consists of well positioned companies acting as technical system suppliers within the following business areas:

Mechanics, Paper & Board, Marine Engineering and Real Estate.

## Innovation

Innovation for us means including good ideas and new thinking in advanced and competitive marine design. A continuous and fruitful dialogue with the client is of prime importance, regardless of the project's size. Our ideas are realized through technological know-how and our understanding of the environment and new demands on the shipping industry.

## Passion

We love the sea, ships and what we do. Everyone in our offices in Uddevalla, Göteborg and Shanghai is loyal and devoted to marine design. Our personnel are engineers, project leaders and other experts who are familiar with all aspects of the marine industry. Our teams are problem solvers with a perfect result and the client's best in mind.

## Reliability

FKAB has delivered successful ship designs for more than 50 years. Our portfolio of proven ships sailing the oceans of the world is testimony of our professional strength. Clients can rely on our experience, our dedication and capacity to deliver high quality, on time.

*Welcome to FKAB Marine Design!*



22 000 m<sup>3</sup> Multi Gas Carrier for LPG/LEG/LNG



*20000 m<sup>3</sup> Product and Chemical tanker*



*Dredger - NOSPER, No Split Engine Room*

# Ship Design

In designing ships for the future, logistical holistic thinking is equally as important as energy efficiency and minimizing the effect on the environment. At FKAB Marine Design we work with solutions for new, more environment-friendly fuels for example, and forming and materials that reduce fuel consumption and increase cargo capacity. A ship is also a work place, where ergonomics, work environment and safety are all important factors. We design beautiful ships that allow people to develop and feel good in their surroundings.

- Concept
- Gas Carriers
- Dredging
- Offshore
- Tankers
- Dry Cargo
- Small & Special purpose ships
- Transport ferries

# Consultancy Services

Besides creating excellent ship designs, FKAB offers an extensive range of marine consultancy services. Whether you represent a ship owner, shipyard or a supplier you can feel confident that FKAB has the knowledge, experience and capacity to assist you in every step of your project.

## **Example of consultancy services:**

- Energi Optimization
- Ship design
- Project management
- Naval Architecture
- Studies & Investigations
- Styling & Visualisation

Compared with other fields the shipping industry is lagging behind in the development of environmental work. FKAB would like to change this and help you with large or small environment-friendly projects.



LNG Flexi Tanker



Aframax converted to Semisubmersible Vessel



Passenger & Transport Ferry



Rescue Boat



Backhoe Dredger



45 000 m<sup>3</sup> LNG Carrier

# Offshore

For many years we have supplied design of complete hull including hull calculations, sometimes with associated equipment drawings, for advanced offshore vessels such as, Sesmic- Diving and Construction vessels. One of the challenges of these designs are the advanced equipment which will be incorporated in the ship and which are under development during the process. Hull calculations usually consists of FEM calculations on larger or smaller parts of the ship.

We also have extensive experience of semisubmersible platforms, both for the offshore industry and wind power industry in which we deliver geographically limited parts but including all disciplines or together with partners for the whole platform. We are also a technical resource in various design teams under clients management.

We have experience and perform document review of semisubmersible platforms towards the contracts and technical specifications considering the marine technical skills we possess.

# Energy Optimization

**We deliver the technology that allows you to make a difference!**

In a world, where there at times are drastic changes in climate, we should all consider the way we live and work. We should all help to conserve natural resources and reduce environmental impact by, for example, reducing carbon dioxide emissions.

Recent changes, in the regulations and pricing on different fuels and also public opinion in terms of fossil fuels, has led to a greater focus on reducing or completely replacing fossil fuels. FKAB is therefore working to optimize shipping vessels to enable lower fuel and energy consumption. **We do this on both new projects as well as on existing vessels.**

We analyze the entire ship and individual systems based on items such as environment, regulations and perspectives which can be either user-related, have to do with energy or are of a technical and/or economic nature.

- Pressure drop calculations and flow optimization
- System and pump curve matching
- Evaluation of ship lines - Propulsion optimization
- Main and auxiliary engine configuration including related equipment
- WHR (Waste Heat Recovery)
- Other energy optimization
- Ventilation

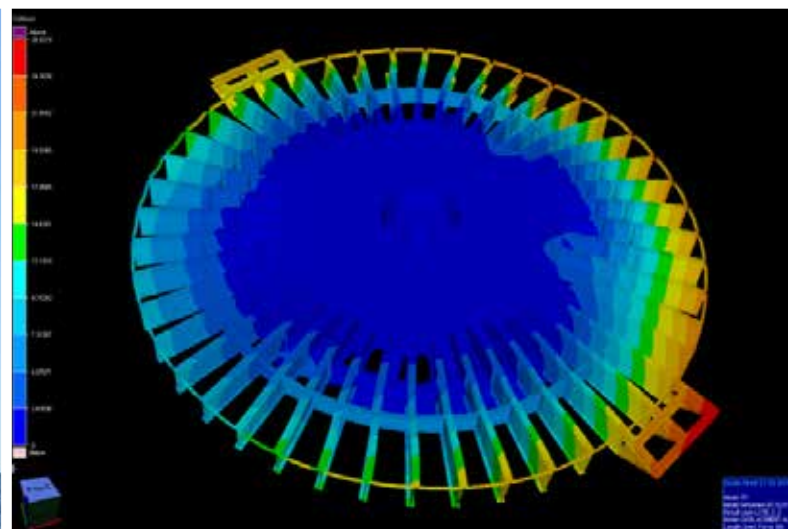




Semi Submersible Accommodation Platform



Platform Supply Vessel



FEM Analyse of a Cable Carousel

We Use Our  
Planet's  
Resources  
Responsibly

We strive to design ships that are the best they can be in all waters.  
Ships that are beautiful, technological and eco-friendly.  
The same sense of innovation characterizes our way to take responsibility for  
the environment. While we´re proud of the progress we´ve made, we know  
we can still do better with our continuous improvements.

We have a large responsibility to leave a smaller footprint.  
It won´t happen overnight, but we are working to get better every day!

## **Innovation, Passion & Reliability**

**FKAB Marine Design**



# Successful Ship Designs Since 1961

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