# AQUA

PRODUCTS AND DELIVERIES



Innovation drives us

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### MARINA SOLUTIONS

Marina Solutions was founded in 2010 with the objective of delivering high-quality floating piers to boat owners along the Norwegian coastline. Challenges posed by tides, weather, and the growing trend of larger boats have inspired us to develop innovative solutions, which is why we go by the name Marina Solutions.

#### **INNOVATION DRIVES US**

Our team is motivated by innovation and customer satisfaction. This passion has led us to explore new markets, and we are now proud supplier of customized, robust solutions for the aquaculture industry. Our main products include the complete installation of feed barges, waiting cages, and floating service piers or breakwaters.

All our products are manufactured in Norway, close to the ocean, in state-ofthe-art facilities that ensure high quality and customer satisfaction. Would you like to learn more? Please do not hesitate to contact us! Our headquarters are located in Sunnmøre, where the mountains, fjords, and the ocean converge.



**Torgeir Iversen** CEO Marina Solutions

#### **OUR CORE VALUES**

- > Innovative: We will constantly work to find the best solutions for the customer's needs
- > Engaged: Our employees are committed and work closely with the customer to find good and lasting solutions that we can be proud of
- > Personal: We seek to build strong relationships with customers and suppliers, based on honesty and trust. We aim to be a great workplace with a focus on a positive work environment and respect for employees' family life and leisure time.
- > Responsible: We take responsibility for our employees, for the products we deliver, and for the environment around us. We have a responsibility to operate our business in a safe, sustainable, and ethical manner. This is also a focus within our supply chain, and we have established clear guidelines for responsible business conduct. We are responsible for providing a safe workplace and delivering secure, functional, and lasting solutions to our customers

### FROM PLANNING TO INSTALLATION

The anchoring of floating constructions can be described as the foundation of the facility. Marina Solutions offers its own marine contracting services with extensive experience in anchoring and completing larger floating concrete docks. Our in-house expertise is supported by planning, analysis, and calculations performed by external, independent, and reputable engineering service providers.



#### **OUR SERVICES**

- > Design and Planning
- > Consulting Services
- > Application Processes
- > Project Management
- Anchoring tailored to the type of facility:
- > Sand Anchors
- > Rock Anchors
- > Anchor Chains
- > Rock Bolts
- Shock Absorbing Weights/Plates
- > Pile Installation
- ROV (Remotely Operated Vehicle) Inspection
- > Stockholding of anchoring
- equipment and accessories
- > Assembly and Anchoring
- > Service and Maintenance

Our feed barges are built from concrete and certified in accordance with the NS9415 standard. These barges are manufactured in Norway. THE BARGES ARE BUILT IN DRY DOCKS AND ARE COMPACT AND FUNCTIONAL



#### COMBINED FEED PLATFORM AND TOURIST ATTRACTION

"The goal is to educate more people about the aquaculture industry. We want to show the local community, schools, nurseries, and tourists how we produce food", says the project manager Knut Røsvik in Hofseth Aqua.

## FEED BARGES

Do you need a new feed barge? Marina Solutions provides concrete barges for the aquaculture industry - complete turnkey solution. Concrete barges are stable in the sea and require minimal maintenance. Each project is unique, and we assist you with the planning. In collaboration, we determine what the barge should contain for efficient operations and comfortable accommodation for the crew.

### HIGH QUALITY, ROBUST AND LONG-LASTING

Marina Solutions was established in 2010 and has become a leading fullservice provider of marinas and floating harbor facilities. Over the past few years, we have expanded our presence as a reliable supplier to the aquaculture industry. By 2022, we have proudly delivered four turnkey barges, including the "world's finest feed barge," to Hofseth Aqua AS. Three of these barges are identical and are operational in different locations in Storfjorden. The largest and most beautiful barge serves both as a feed platform and a tourist attraction, featuring architectural designs. The showcase barge is designed to accommodate tourists and students interested in learning more about the aquaculture industry.



**PLANNING** Tailormade in cooperation with you.



**TOWING TO LOCATION** 

The showcase barge "Ivar Heggen" is situated in Valldal, Storfjorden. The picture shows this remarkable floating structure being towed along Ålesund.



**EXPERTISE** Our design engineer has experience with feed barges in concrete since the 1980s.

#### TURN-KEY SUPPLIER

Marina Solutions has an extensive knowledge within floating piers and constructions, and deliver a turn-key feed barge that suits your needs.

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## FEED BARGES

The main advantages choosing a feed barge in concrete are:

- > Durability
- Stability and safety
- > Lifetime costs and environmental benefits

### THE MAIN ADVANTAGES

1. **Durability:** Concrete feeding barges are known for their exceptional durability, capable of withstanding harsh marine environments and the corrosive effects of saltwater. This longevity reduces the need for frequent maintenance, ultimately saving on valuable time and costs.

2. **Stability and Safety:** The weight and stability of concrete feeding barges make them highly secure platforms for aquaculture operations. They provide a stable working environment for feeding and monitoring fish, minimizing the risk of accidents and improving overall safety.

3. **Environmental Benefits:** Concrete feeding barges are often designed with eco-friendly features, such as integrated waste management systems and reduced emissions. This focus on sustainability aligns with the growing demand for environmentally responsible aquaculture practices, helping operators meet regulatory requirements and market expectations.



#### LOW MAINTENANCE DEMANDS Concrete feeding barges require minimal ongoing maintenance due to their durability and resistance to corrosion. This means aquaculture operators can allocate fewer resources to upkeep.



#### LIFETIME COSTS

Concrete feeding barges boast a longer lifespan compared to alternative materials. Their robust construction minimizes the need for frequent repairs or replacements, making them a cost-effective investment in the long run.



**CERTIFIED** To meet the high standards in the industry, the rafts undergo rigourous certification processes.

## REFERENCES



**CUSTOMIZED FEED BARGE FOR HOFSETH AQUA AS** In September 2021, Marina Solutions delivered the feed barge to Hofseth Aqua AS's aquaculture facility at Urdaneset in Storfjorden. The barge measures approximately 28 x 19 meters and has a loading capacity of 500 tons of feed.

This feed barge is constructed from concrete, compact, and functional. It operates on shore power and includes a modern feeding system with eight lines, a silage system, veterinary and chemical rooms, two cabins, and comfortable living spaces.



#### FEED BARGE AT BUGANE IN SYKKYLVEN

In September 2021, Marina Solutions delivered the feed barge to Hofseth Aqua AS's aquaculture facility at Bugane, near Sykkylven, in Storfjorden. The barge measures approximately 28 x 19 meters and has a loading capacity of 500 tons of feed.

This feed barge is the second in the series for Hofseth Aqua and closely resembles its sister barge. It is also constructed from concrete, compact, and functional. It includes a modern feeding system with eight lines, a silage system, veterinary and chemical rooms, 2 cabins, and comfortable living spaces.



FEED BARGE FOR AQUA FACILITY IN STORFJORDEN The barge is equipped with six concrete/steel feed silos with radar level measurement. The feeding system is a complete 8-line system with a control unit and software license.



**DELIVERED TO HOFSETH AQUA AS** The hull stands 4.7 meters high, providing ample freeboard. The barge is certified according to NS9415:2009 for locations with Hs < 3.0.



#### FEED BARGE NEAR STRANDA, STORFJORDEN

In May 2022, Marina Solutions delivered the feed barge to Hofseth Aqua AS's aquaculture facility at Ovråneset, near Stranda in Storfjorden. The barge measures approximately 28 x 19 meters and has a loading capacity of 500 tons of feed.

The design of the barge was a collaborative effort between Marina Solutions and the customer, and it was built in dry dock in Kyrksæterøra.



#### FLOATING PIER, SALMON EYE

We take pride in having delivered the pier structure in Rosendal and the floating dock at Salmon Eye. It was Eide Fjordbruk that came up with the idea for this spectacular aquaculture exhibition center, also known as the world's largest floating art installation! The concept behind it is to shed light on the opportunities and challenges of the aquaculture industry, as well as to inspire and inform on how we can provide the world with more food from the sea.



#### FLOATING PIER, CERMAQ

Floating dock with tank system and drivable gangway. Floating dock: 25 x 8 meters / Gangway: 20 x 3.6 meters. The floating dock is equipped with collision chambers, bilge pumps, and an alarm system.



**FLOATING DOCK FOR FRY FISH FACILITY IN DÅFJORD** NRS Farming has established a new fry fish facility in Dåfjord, Finnmark. In connection with the loading of smolt onto large wellboats, the company also needed to upgrade its pier facility. Photo: Afry, NNBK AS. Patented floating piers: Revolutionizing fish storage and logistics.

ENGTH	16- 25 M
VIDTH	4 -6 M
OTAL HEIGHT	1,6 M

SERIE REFERENCE

Other sizes upon request

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DURABLE AND PRACTICAL FISH STORAGE SYSTEMS FOR THE AQUACULTURE INDUSTRY Customized solutions for efficient fish handling and delivery.

## FISH CAGES

Are you looking for a safe and practical logistics solution for handling and delivering fish? We have further developed a patented pier solution to function as a comprehensive system for fish storage before processing. Our concrete-based solution ensures safety for the workers, vessels, and the well-being of the fish.

## INNOVATIVE CONCRETE SOLUTION FOR SAFE AND EFFICIENT FISH HANDLING

This system has evolved from our patented snow-free floating pier, which we have delivered to multiple locations throughout the country. The sizes of the pier elements vary from 16 to 25 meters, with widths of 4 and 6 meters.

Concrete piers are constructed with a large channel in the middle, concealing pipes and cables, and covered with a grating. The slaughter cages are sturdy structures with a long lifespan, capable of withstanding loads and equipment weights.

A service dock with a basement for technical installations is necessary.



#### FISH HANDLING SYSTEM The waiting cages come equipped with a comprehensive fish handling system, including winches for net lifting (with lighting), suction hoses for fish pumping, and a LiftUp system.







WAVEBREAKER The service platform also functions as a wavebreaker, safeguarding valuable assets. HQ: MARINA SOLUTIONS AS IVAR AASEN GATE 10 6150 ØRSTA, NORWAY T: (47) 70 30 08 90 www.marinas.no SALESOFFICE: MARINA SOLUTIONS AS AVD EIDSNES, NORWAY RYSTENE 15 6037 EIDSNES WAREHOUSE: MARINA SOLUTIONS AS AVD ÅLESUND ØSTRE BINGSA INDUSTRIVEG 7 6019 ÅLESUND, NORWAY



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