## Seatec International Maritime Annual Review 2025

Rauma Marine Constructions began building its second multi-purpose corvette

OF TASMANIA I

Star of the Seas launched at the Meyer Turku shipyard

SPIRIT of TASMANI

10 years old Meyer Turku aims for carbon-neutral shipbuilding

RMC builds innovative ferries for Tasmania's tough waters

## THE POWER OF WATER JETTING

FINFINE

## **TOP QUALITY FROM FINLAND!**

Finfinet delivers high pressure surface cleaning **pump units** and accessories to ship yards. Clean your windows, decks, sides and all with loyal, easy maintenance units. New systems to the newest ships and customizing to the older ones.





## THE NEW GENERATION OF PHOTOLUMINESCENT LOW LOCATION LIGHTING SYSTEMS

**The pioneer** and a game changer on the market. With its high quality and focus on the environmental footprint it is by far the best choise of PL LLL today on the Maritime Industry market. Most sign makers use PVC, despite the fact that it is the single most environmentally damaging of all plastics. PVC contains halogens and their toxicity of smoke is of highest concern within enclosed spaces, which you will find onboard any ship or offshore platform.



#### BENEFITS COMPARED TO OLDER GENERATION ALUMINIUM PROFILE SYSTEMS:

No lost or loose end caps ✓ No gaps due to shrinking ✓ No more dirt collections on profile ✓ No mechanical damages ✓ No more dirt on insert which cannot be removed ✓ Not as time consuming to replace ✓ No unnecessary weight due to profiles ✓

No shivering from loose profiles after some years of service  $\checkmark$ 





## THE NEW GENERATION OF LOW LOCATION LIGHTING SYSTEMS

We offer as the only manufacturer in the market SafeSign PET-X LLL photoluminescent strips. This innovative product offers the following benefits:

- Glossy finish
- PVC Free
- Halogen Free
- Easy to wipe clean
- UV resistant
- Recyclable
- No end caps needed
- 10 year warranty
- >10 years life durability
- No shrinking
- 50% timesaving on installation
- Self-adhesive backing
- Salt Water resistant



### NAVIGATING THE FUTURE: FINLAND'S MARITIME INDUSTRY AT A TURNING POINT

Finland's maritime industry has long been a cornerstone of the national economy, renowned for its innovation, resilience, and ability to adapt to changing global demands. Today, this vital sector stands at a crossroads, balancing challenges and opportunities in an increasingly competitive and sustainability-driven world.

One of the key strengths of Finland's maritime cluster is its commitment to high-quality, sustainable solutions. Finnish shipyards, system providers, and service companies have carved out a reputation as leaders in green technology, offering cuttingedge solutions for cleaner shipping. From LNG-powered vessels to advancements in hybrid propulsion and waste management systems, the industry's focus on sustainability aligns seamlessly with global environmental targets.

Despite these achievements, the sector faces significant hurdles. Global economic uncertainty and fluctuating energy prices continue to impact demand, while intense competition from emerging markets puts pressure on pricing and profit margins. Furthermore, supply chain disruptions, partly stemming from geopolitical tensions, have exposed vulnerabilities that need urgent attention.

However, opportunities abound for those prepared to innovate and collaborate. Digitalisation and automation are transforming ship design, construction, and operations. Finnish companies are wellpositioned to lead this revolution, thanks to their expertise in smart technologies and maritime ICT solutions. Additionally, the Arctic expertise of Finnish firms remains a key competitive advantage as interest in northern sea routes and ice-class vessels grows.

Collaboration across the maritime ecosystem is essential to sustain growth and tackle challenges. Strengthening partnerships between shipbuilders, component suppliers, research institutions, and public authorities will drive innovation and ensure a competitive edge. Equally important is nurturing the next generation of maritime professionals through investments in education and workforce development.

The Finnish maritime industry has a proud history and a promising future. By continuing to lead in sustainability, innovation, and collaboration, the sector can remain a global pioneer, navigating the waves of change with confidence.

PETRI CHARPENTIER

## seatec

2025

#### PUBLISHER

PubliCo Oy Pälkäneentie 19 A FI-00510 Helsinki Finland Phone +358 20 162 2200 info@publico.com www.publico.com

EDITOR-IN-CHIEF Petri Charpentie

PROJECT MANAGER Paul Charpentier

EDITORIAL COORDINATOR Liisa Hyvönen

**GRAPHIC DESIGN** Riitta Yli-Öyrä

**CONTRIBUTORS** Ari Mononen

COVER PHOTO Rauma Marine Constructions Oy

PRINTED BY Printall AS

ISSN 1239-5803 (print) ISSN 2737-2006 (online)

All rights reserved. This publication may not be used in whole or in part to prepare or compile other directories or mailing lists without the written permission of the publisher. Measures have been taken in the preparation of this publication to assist the publisher protect its copyright. Any unauthorized use of the data herein will result in immediate legal proceeding.

www.seatec.fi/magazine

# Visit seatec.fi/magazine

airways wall and ceiling materials shipbuilding yards new ulsion all about maritime industry systems engines systems s audio and video systems communication equipment lightnin vigation ship management systems ship operation and automa

ering educatio and ventilatio re extinguishi s & fittings i s new all abou ystems materia ghtning system omation system onducts survey htal technolog e & cable ship floor coverin prime movers hology electro ring systems r



software prod :ems environme systems wire 'urnishing & f 'fit repairs t harine technol Hology monitor :ion design an ipment air-co ystems pumps rs and window iterials shipb about maritim mmunication e

and engineering education and research interior design so ditioning and ventilation cleaning systems cooling systems safety & fire extinguishing systems waste & waste water s all about maritime industry furnitures & fittings insulat d ceiling materials shipbuilding yards new building refit

## Contents



#### 04 Editorial

## **08** RMC builds innovative ferries for Tasmania's tough waters

The demanding routes and fierce conditions of the Bass Strait served as the key reference framework for the design and building of the Spirit of Tasmania ships, a commission to which RMC has provided its best expertise, shipbuilding experience and skills.

## **18** Star of the Seas launched at the Meyer Turku shipyard

Star of the Seas, the second ship of the Icon ship series built for Royal Caribbean International, has been launched at the Meyer Turku shipyard.

## **20** Signwell 30 years knowledge of maritime safety signage systems



## 10 years old Meyer Turku aims for carbon-neutral shipbuilding

After delivering two vessels to TUI Cruises in 2018 and 2019, Meyer Turku is now building another cruise ship for the German cruise line: Mein Schiff 7. Turku shipbuilders began construction on the vessel in June 2022. Mein Schiff 7 is the first built-in methanol capability cruise ship from the Turku shipyard.

#### RMC began building its second multi-purpose corvette

On Thursday, 9 October, the Rauma shipyard initiated the building of its second multi-purpose corvette with a traditional steel cutting ceremony. The ceremony marked the start of the construction phase and was attended by representatives from the Ministry of Defence, the Finnish Navy and the Finnish Defence Forces Logistics Command.

Advanced hybrid technology for passenger ferry M/V 'Eloise'

JDE Peets equipped AURORA BOTNIA with the Cafitesse coffee system, uniquely sustainable and bio-safe, as a newbuilding

Modular, installation-friendly fuel supply system for engines and other ammonia consumers

- Finnish Marine Industries
- Company Directory





## RMC collaborates with its client to build car and passenger ferries for Tasmania's challenging sea conditions

by: RAUMA MARINE CONSTRUCTIONS photos: RAUMA MARINE CONSTRUCTIONS

The new Spirit of Tasmania ships are longer, wider and taller than their predecessors.



The demanding routes and fierce conditions of the Bass Strait served as the key reference framework for the design and building of the Spirit of Tasmania ships, a commission to which RMC has provided its best expertise, shipbuilding experience and skills. These car and passenger ferries, which are vital to Tasmania's foreign trade, tourism and human mobility, incorporate several pioneering and unique innovations, all supported by Rauma's specialised shipbuilding competence. Close co-operation with our Tasmanian clients has ensured the success of this project.

pirits are high at Rauma Marine Con-Struction (RMC)! The first of the world's two southernmost regularly operating LNG car and passenger ferries has been delivered to the client. The ship is intended to serve both trade and passenger transport along the vital open sea route between Australia and Tasmania. Its sister ship, Spirit of Tasmania V, is due to be completed in the spring of 2025. The two Spirit of Tasmania ships will significantly increase the passenger, vehicle and freight capacity, while also enabling Spirit of Tasmania, as a company, to better meet its customer needs and environmental aspects. The shipping transaction between RMC and TT-Line Company marks the largest single export transaction between Australia and Finland. The contract was signed in 2021.

### SEAMLESS COLLABORATION AND TRUST ENSURE SUCCESS

At the start of the project, five Spirit of Tasmania employees and their families relocated to Finland. The operational approach and trust between the people and organisations involved were initiated from the ground up on all levels of the organisation. The cultural convergence of warm, southern Australia and northern Finnish began with an introduction to ice hockey in Rauma, and a lot of time has been spent together, for example, at outdoor barbe-

The new ships will bring a significant boost to Tasmania's economy. cues. Those involved have gathered daily around the same table in the spirit of teamwork to advance the project. The technical and major geopolitical challenges encountered during the years of construction have been overcome through a cooperative and discursive approach to issue resolution.

#### INNOVATIVE AND CUSTOM TECHNOLOGY SOLUTIONS THAT MEET CLIENT SPECIFICATIONS

The co-operation between RMC and TT-Line Company, which is owned by the state of Tasmania and operates under the name Spirit of Tasmania, enabled the companies to build tailored ships capable of handling the marine conditions, waves and environmental conditions along the extremely demanding but essential route across the



## Sea. That's why



Bass Strait between Devonport in Tasmania and Geelong in Victoria.

The new Spirit of Tasmania ships are longer, wider and taller than their predecessors. The new ships will increase the annual passenger capacity on the Bass Strait route by almost 30 per cent, the lane metres for passenger cars and freight by 60 per cent, and the cabin capacity by approximately 35 per cent, while the environmental impact of shipping will be significantly reduced.

The new ships will bring a significant boost to Tasmania's economy. **Bernard Dwyer**, Managing Director and CEO of Spirit of Tasmania, described the ships as the start of a new era in passenger and freight traffic across the Bass Strait.

"The official handover of the vessel from RMC to TT-Line was a significant milestone in this generational project for the State of Tasmania," he said.



"While there are some very minor works to be completed by RMC, we are delighted with the vessel that we are taking possession of. We know Spirit of Tasmania IV will serve Tasmania and all those who travel on her between mainland Australia and the island State very well. We are excited to take this next significant step in the project."

"Spirit of Tasmania IV is the first of its kind in many aspects and is equipped with several customised solutions designed in accordance to the client's wishes. Among other things, the ship is the first car and passenger ferry of this size with dual-fuel engines that mechanically rotate the ship's two propellers. It is important that TT-Line has been closely involved in the design of the ship from the very beginning, since it has enabled us to consider the technology solutions they require and the vessel's demanding operating conditions," says **Mika Nieminen**, CEO and President of RMC.

Johanna Kaijo, Project Manager for RMC's Spirit of Tasmania vessel builds, explains that the project has required many innovative solutions, for example, to meet the natural conservation values required by the Tasmanian authorities, to take into account Tasmania's environmental stand-



The decrease in fuel consumption has a positive impact on the Spirit of Tasmania's efforts to realise its environmental values.

ards and to optimise seagoing properties of the hull design and strength dimensioning.

"This is a particularly demanding route through potentially stormy seas, requiring special solutions in the planning and building of ships for the specific Bass Strait conditions. For example, especially large stabilizers ensure the best possible travel comfort in heavy swells. In addition, special attention was given to keeping vibration and noise levels low as part of the ship's design. A significant amount of interior furnishings and materials were sourced from Tasmania in order for the ship to better reflect its home country," says Johanna Kaijo.

Spirit of Tasmania IV is the first ship in the world to have the circuit breakers and switches of the ship's electrical power distribution realised using an integrated bus solution. This helps conserve fuel and facilitates the tracking of energy savings. The system was implemented by the Kankaan-





AUMA Finland Oy Electric Actuators and Gears +358 9 5840 22 www.auma.fi

pää-based company Promeco using ABB's Ekip Link solution.

This project also marked the first time RMC used silicone paint on the hull of the ship, a point of pride for Project Manager Kaijo. The work required unique knowhow and precise timing. The priming had to be carried out so that the first layer could dry in fair weather, with the next layer applied within a certain time frame, and that required a period of solidly dry weather. For this purpose, weather forecasting sites were extensively studied by many people.

"Silicone painting significantly decreases the use of fuel during operation, thus reducing the operating costs of the ship. Furthermore, silicone paint keeps the bottom of the ship clean of impurities and reduces the need to wash the base. The decrease in fuel consumption has a positive impact on the Spirit of Tasmania's efforts to realise its environmental values. The challenge with silicone painting is that it is sensitive to mechanical contact. For this reason, the ships can only sail from Rauma to Tasmania in ice-free conditions," explains Kaijo.

#### SPIRIT OF TASMANIA SHIPS ARE FINE EXAMPLES OF THE STRONG SHIPBUILDING EXPERTISE FOUND IN RAUMA

Throughout the construction of the shiny new Spirit of Tasmania IV, the shipyard and its subcontractors worked hard during the heart of the winter when temperatures dropped below -20°C and in the middle of the summer when temperatures reached equal levels on the plus side. At its peak, more than 1,500 people were working on building the ships at the same time. The employment impact of Spirit of Tasmania ships is more than 3,500 person-years.

A significant part of the project is being carried out through co-operation

with a network of partners. The COVID-19 pandemic and the global unrest resulting from the war in Ukraine had an impact on the availability of raw materials and labour as well as causing cost increases, which made the building process particularly challenging. Despite that, approximately 30 shipyard subcontractors and over 300 suppliers operating at the shipyard during the construction phase managed to carry the project forward decisively together with RMC's personnel. According to Mikko Jaskari, Acquisition Manager, the delivery of the first ship was only possible because of the project's competent and adaptable network.

Throughout the project, RMC invested in a completely new way to develop its project expertise and increase its capabilities. The sister ship, Spirit of Tasmania V, will be completed on a faster schedule than the first. The construction of Spirit of Tasmania V began in December 2022 and the ship was launched in July 2024. The sister ship will travel from Rauma to Tasmania after the ice in the Bothnian Sea melts in the spring of 2025. RMC's investments in competence, infrastructure and technology are visible in the Tasmanian ships. RMC has taken a strong process management model into use and has focused on further developing its competence through recruitment, training and on-the-job learning.

#### INTERIOR DESIGN SOLUTIONS REFLECT BOTH TASMANIA AND WESTERN FINLAND

When the hull work was completed, interior work on the ship began, including plumbing and electrical work, as well as the furnishing of the cabin areas and restaurants. Special skills were required for the outfitting of the ship's engine rooms and car decks, as well as the commissioning of different systems.

The majority of RMC's supplier network is located within a 150 km radius of the shipyard, but the construction called for a broader use of unique Finnish expertise and introduced special features and materials from Tasmania.

Johanna Kaijo is very pleased with the interior design solutions. One of the

important functions of the Spirit of Tasmania ships is to promote tourism in Tasmania. **Richard Andree Nilsson**, an architect at the Swedish architectural firm Figura, worked hard to expertly integrate characteristics of Tasmania's various regions in the ship's interior solutions.

Elements used in the interior design, such as wood salvaged from Lake Pieman, were sourced directly from Tasmania. Finnish expertise can be seen, for example, in the kitchens, which were designed and implemented by LMG Finland Oy in Eura, Finland.

"Now that the first Spirit of Tasmania ship has been delivered to the client, it's great to see that everything works on the ship precisely as planned. The smooth and continuous collaboration with the client was essential for this successful outcome. It has been very solution-oriented and was boosted by the fact that Tasmanians have a very positive attitude towards life," says Johanna Kaijo, Project Manager for Spirit of Tasmania ships.

#### THE COMPANY'S FIRST COMPLETELY NEW AND SPECIFICALLY TAILORED SHIPS

In the winter of 2022, **John Anastassiou**, Technical Project Manager of TT-Line, left

SPIRIT of TASM

the warmth of Tasmania and arrived in Rauma to ensure that the ship projects were progressing as intended from TT-Line's perspective. Anastassiou describes his posting in Rauma as a wonderful experience.

He states that the most important aspect of overseeing the construction of new ships has been integrating those issues that TT-Line has learned in the past about the needs of its different customers: how to create an even better travel experience in terms of the cabins, restaurants and other services.

"This is the first time TT-Line has acquired completely new ships. Our overall goal, to put it simply, was to acquire bigger and better ships that are fully tailored to our needs and the conditions of the Bass Strait," says John Anastassiou.

This simple goal, however, involved an enormous number of details that were further honed during the construction project. This investment is huge for TT-Line. The service life of the ships will be more than 25 years, so the investment will be worth it. Anastassiou says that the best technology and expertise has been used to craft these ships and all specifications have been entirely guided by the needs of TT-Line.

The sister ship, Spirit of Tasmania V, will be completed on a faster schedule than the first.



### Success begins with smarter design choices

- Designs for cruise ships
- Technical calculations
- Seafastening design
- Heavy lift planning

office@alvars.fi +358 50 442 7272 www.alvars.fi

"The collaboration with RMC has been excellent. We have a written contract for the overall construction of the ships, of course, but we have worked together throughout the entire construction project in order to guarantee that all the details of the ships will fully meet our needs," adds Anastassiou.

As an example, he mentions the Finnish-made dual-fuel engines, which will help to reduce  $CO_2$  emissions by 30 per cent in comparison to existing ships. Lower emissions are realised through lower fuel consumption, which also means lower fuel costs.

"I can confidently say that this is a high-quality vessel. We are very pleased that the ships have been built in Finland, and Rauma in particular, where expertise and subcontracting networks are of the highest quality. It has been a significant asset for us," says Anastassiou.

John Anastassiou and his wife will be returning to Tasmania in spring 2025,

when Spirit of Tasmania V returns to its home port.

#### MOST SIGNIFICANT EXPORT DEAL

The trade deal of two Spirit of Tasmania vessels by TT-Line Company and Rauma Marine Constructions is also one of the largest export deals ever to have taken place between Finland and Australia. The contract was signed in 2021 and the latter of the two ships is set to be delivered to the TT-Line Company in spring 2025.

Site Service Oy

www.rrss.fi

Known for his more than four decades in the shipbuilding industry, **Håkan Enlund**, EVP of Sales and Marketing at RMC, is responsible for the trade deal. There were special issues involved in the establishment of this deal that required good connections and perseverance. Among them, Enlund highlights the fact



The vessels have been designed to meet the needs of the Bass Strait and the business conditions of the client.

that the Spirit of Tasmania ships will be exposed to extremely demanding weather and sea conditions.

"The vessels have been designed to meet the needs of the Bass Strait and the business conditions of the client. RMC specialises in large and fast car and passenger ferries. This is where RMC holds a leading position on a global scale," confirms Enlund.

First negotiations with the Tasmanians were initiated already in 2008, but it was not until late 2019 that the parties sat down once again at the negotiating table. The contract was finally signed in 2021, but with a special twist.

"The contracts for the construction of Spirit of Tasmania IV and V are the only contracts I have signed remotely in my 44-year career," states Enlund.

In addition to the pandemic, certain geopolitical issues challenged the construction of the Tasmanian ships.

"We can't influence geopolitics. We can, however, remain focused on our belief in the future. Once both ships are in traffic, we will see the benefits of our efforts for Tasmania and TT-Line. That's when we will be truly satisfied," Enlund believes.

SPIRIT OF TASMANIA

#### STRONG CONTINUITY FOR THE NEW SHIPYARD IN RAUMA

and and a state of the

In connection with the construction of the Tasmanian vessels and under the leadership of Mika Nieminen, who took his position as CEO and President of RMC in spring 2023, the shipyard has adopted a new industrial approach. The shipyard's order book extends until 2028, but according to Nieminen, after the delivery of both Tasmanian vessels, it will be possible for the shipyard to start building new vessels alongside the multi-purpose corvettes under construction.

"In the future, we would like to take advantage of our special expertise in winter navigation to build icebreakers and other ice-strengthened vessels for both the public and private sectors. We are interested in co-operation with other countries who operate in icy conditions. It would be natural to increase co-operation with other Nordic countries, especially Sweden."

Nieminen considers Rauma, as a strategic port location, to be uniquely positioned for shipbuilding projects such as icebreakers or, for example, collaboration with NATO partners. Rauma's renewed shipyard has invested in a secure environment where the entire construction project can be carried out in a single shipyard area. Investments have been made in steel production, a hall has been built for indoor shipbuilding and a new heavy transfer ramp and quay are also under construction for launching purposes.

RMC has invested in the construction of hybrid ships and conversion of ships to become hybrid-powered; one example of which is the Rauma-built Aurora Botnia. RMC is currently working on the FUSE project to explore the concept of a fully electric ship. RMC estimates that stricter emissions requirements will accelerate the demand for cleaner ships.

"We offer a very concrete value proposition: we provide a strong demonstration of Finnish expertise that is tailored to our clients' needs and meets all current requirements," assures Mika Nieminen, CEO and President of RMC.



#### A YEAR-ROUND OFFSHORE WIND SERVICE VESSEL FOR THE NORTHERN BALTIC SEA

The ice-capable Service Offshore Vessel (SOV) developed by Aker Arctic ensures continuous operation in icy marine areas.

The emphasis on operational requirements and the well-being of the personnel has guided the design. Flexibility in customization allows the design to be precisely adapted to meet project-specific requirements, while the innovative concept accommodates a variety of fuel options to align with prospective client preferences.

Aker Arctic boasts extensive expertise in evaluating and benchmarking the costs of logistic systems beyond vessel design.

Reach out to us to get a detailed evaluation of the operational (opex) and capital (capex) expenditures for your servicing fleet.



AKER ARCTIC TECHNOLOGY INC Merenkulkijankatu 6 | FI - 00980 Helsinki | Finland tel. +358 10 323 6300 | info@akerarctic.fi www.akerarctic.fi

## Star of the Seas launched at the Meyer Turku shipyard

by: MEYER TURKU photos: MEYER TURKU

Star of the Seas, the second ship of the Icon ship series built for Royal Caribbean International, has been launched at the Meyer Turku shipyard.

The Star of the Seas, which is being built at the Meyer Turku shipyard, was launched in the traditional manner on Wednesday, September 25, 2024. During the weekend following the ceremony, the ship was moved to the outfitting dock, where its now fully assembled hull will be finished into a magnificent cruise ship over the next six months.

Tim Meyer, CEO of Meyer Turku: "Star of the Seas continues the state-ofthe-art lcon series, which has been received by the market with unprecedented popularity. With Star, we will again be able to show our unique professionalism and enrich it with the fresh know-how accumulated during lcon's construction process and even smoother processes. Star of the Seas plays a key role in developing the shipyard's profitability and is an important step on our journey towards even more sustainable shipbuilding."



Jaakko Leinonen, Project Manager at Meyer Turku, speaks at the launching ceremony of Star of the Seas.

365 meters long, almost 50 meters wide and with approximately 250,000 gross tons, Star of the Seas is the second ship of the Icon class. The first ship in the series, Icon of the Seas, was delivered in November 2023, Icon 3 will be delivered in 2026 and Icon 4 in 2027. Royal Caribbean has also announced options for the fifth and sixth ships in the series.

In accordance with the hallmarks of the Icon class, a gigantic glass and steel dome, the entertainment center AquaDome, has been installed on the ship. The ship offers passengers e.g. also eight



theme areas, numerous swimming pools and forty restaurants.

The Icon class ships are the first ships of their company to run on liquefied natural gas and use fuel cell technology. Together with their other features, such as ground power connections and waste heat recovery systems, they are pioneers in sustainable development.

Star of the Seas will be handed over to the customer in the summer of 2025.

The valves of Meyer Turku's building dock have been opened, and water begins to flow under Star of the Seas.



## Signwell 30 years knowledge of maritime safety signage systems

Signwell is your partner for newbuilding- and refurbishment projects world-wide. We take care of the entire process. Everything from planning to realisation of our 3L-EP<sup>™</sup> Electrically powered Low Location Lighting Systems or 3L-PL<sup>™</sup> Photoluminescent Low Location Lighting systems. Our team will do the engineering and layout and produce the LLL in our production facilities, for us to adequately realise your deliveries and projects. We produce the LLL system by appropriate quality requirements, to endure the environment and desired life span. Our professional installation team specialized in 3L-EP<sup>™</sup> Electrically Powered-/ and 3L-PL<sup>™</sup> Photoluminescent Low Location Lighting Systems, will take care of the implementation.





mplementation of an effective safety signage system onboard cruise ships and ferries is crucial to bring passengers and crew to safety in case of an emergency.

A story about implementing escape route signage onboard cruise ships or ferries will sound like a technical job to many. A large amount of exit signs, stickers and strips, but not something that requires a lot of thinking. Even today on cruise ships and ferries we can still see the lack of safety signage and the knowledge behind it, LED signage and or photoluminescent or, on the contrary, a jungle of exit signs and stickers that all scream for attention, sometimes with conflicting messages, where the essential safety message is lost in the crowd.

#### SAFETY SIGNAGE SYSTEMS: MORE THAN JUST EXIT SIGNS

When the subject is 'safety signage' onboard a cruise ship, for many that equals to 'Exit Signs', without any distinction between primary and alternative escape routes as defined in the ship's man-







#### FSSA is part of the International Ship Suppliers & Service Association

FSSA (SLY, Suomen Laivakauppiaitten yhdistys ry.) is a fully recognized and integrated member of the ISSA, International Ship Suppliers & Service Association, which headquaters are based in London, UK. ISSA has its presence in 51 countries, 500+ Ports Locations, 1500+ Members and 40 National Associations.



datory escape plan. The specialism in the field of escape route signage however, is not to hang (or omit) as many exit signs as possible. Attention should be paid to the connection between the Escape Plan and the signage guiding passengers to the assembly stations: those are the locations where passengers must be accommodated, where the life jackets are and where controlled embarkation can be organized systematically if necessary. A single exit sign on board a ship is as meaningless as a jungle of faulty exit signs screaming for attention, because as a passenger, where do you have to go? The answer is simple: the destination should always be the assembly station.

### THE SAFETY SIGNAGE SYSTEM AS A WHOLE

An effective escape route signage system consists of a Low location lighting system (Electrically Powered/Photoluminescent or both), combined with safety signage according to the standard applied at eye level, electrical signs, signage indicating the way to the assembly station(s) and instructions for guests and personnel (in the cabins and common areas). SOLAS Chapter II-2 Regulation 13 Means of Escape: 3.2.5 Marking of Escape Routes.

The goal of an engineered escape route signage system, is to increase the effectiveness of the evacuation process. Cruise ships are complex architectural



environments. Are passengers and staff aware of the layout of the ship, do they know where the lifeboats are located? For safety reasons, an effective escape route signage system is not complete without clear instructions and training; for passengers and personnel.

#### SIGNWELL IMPLEMENTS COMPLETE SAFETY SIGNAGE SYSTEMS WITH THE ENVIRONMENT IN FOCUS

For many years, the cruise industry has been using safety signage made of (toxic) PVC, or low-quality plastics. With the environment in focus, we at SIGNWELL use a new type of PVC free signage, The New Generation IMO Signs.

Our IMO signs are innovative and environmentally friendly, UV-resistant, PVC-free, Halogen-free and 100% recyclable. Our goal is simple; We wanted to use the most environmentally friendly, flame-retardant, UV-resistant, transparent and 100% recyclable plastic material. Therefore, SIGNWELL have implemented the New Generation IMO signage range, which has more advantages than any other IMO signs on the market.



Martin Holmstrom, Managing Director, Owner: Signwell Chairman of the board: FSSA

We conclude that Safety Signage Systems are more than just a collection of exit signs and just doing what is urgently needed in order to meet the requirements of an inspection or classification society. Safety Signage Systems is a work for professionals. With SIGNWELLS turn-key service, we take care of the project from start to finish. We map the needs for safety signage on fire and escape routes. Furthermore, Signwell is a DNV certified Low Location Lighting System inspector 3L-SI<sup>TM</sup> and carries a wide range of SOLAS safety products in order to increase your safety onboard.

More information: signwell.fi

#### Maritime safety signage systems Implementation requires professional expertise





SIGN & SAFETY SUPPLIER

- Engineering
- Knowledge
- Professional installation
- Reliability
- High-End finish
- 3L-SI

## 10 years old Meyer Turku aims for carbon-neutral shipbuilding

by: MEYER TURKU photo: MEYER TURKU

This autumn, it was ten years since the Meyer family's shipbuilding company became the host of the Turku shipyard. Over the past years, the shipyard has, typically for the industry, experienced both victories and challenges. In the anniversary year, the direction of Meyer Turku however remains clear: Both the world's most advanced cruise ships and the shipyard's own operations aim for carbon neutrality.

e are proud to continue Turku's shipbuilding tradition dating back to 1737. The acquisition we made ten years ago was mainly based on two grounds: First, Turku has a long shipbuilding tradition and world-class know-how. The people of Meyer Turku and of the entire network form a community, the like of which is impossible to build in a short time. Secondly, thanks to the former, it is possible to build very large ships in Turku," says CEO **Tim Meyer**.

"In today's situation, where we are building the world's most advanced

ships and pioneering in green transition, we are also constantly looking for more experts and employees for various tasks. We are committed to remaining owners of the Turku shipyard and to continuing the joint journey with all our partners towards increasingly sustainable shipbuilding. I am aiming at adding another zero behind the 1 in Meyer Turku's age, " Meyer says.

During its ownership, the Meyer family company has invested roughly 300 million euros in the development of the Turku shipyard and daughter companies. Changes have been made to the shipyard's crane fleet, hull production and to the premises of network companies. The daughter company Piikkio Works has also received new production facility for its modular cabin factory in Piikkiö.

Meyer Turku's anniversary has been celebrated among others with a staff party and by opening an updated shipbuilding exhibition at Forum Marinum.



## RMC began building its second multi-purpose corvette

1

by: RAUMA MARINE CONSTRUCTIONS photos: RAUMA MARINE CONSTRUCTIONS On Thursday, 9 October, the Rauma shipyard initiated the building of its second multipurpose corvette with a traditional steel cutting ceremony. The ceremony marked the start of the construction phase and was attended by representatives from the Ministry of Defence, the Finnish Navy and the Finnish Defence Forces Logistics Command. RMC believes that the company's capabilities will also attract new orders to the shipyard.

> The high-performance multipurpose corvettes have been designed for varying conditions in the Baltic Sea.



The individuals who engraved their initials onto the plate, from left to right in the picture, are: Jari Nieminen, Deputy Project Director SQ2020, Rauma Marine Constructions Oy; Marko Piiroinen, Inspector, Lloyd's Register; Jukka Anteroinen, Chief of Staff of the Navy Command, Rear Admiral; Juha-Matti Ylitalo, Deputy Chief of the Finnish Defence Forces Logistics Command, Brigadier General of Engineers; Tuomas Kaitila, Partner and Member of the Board, Rauma Marine Constructions Oy; and Mika Laurilehto, Deputy CEO, Rauma Marine Constructions Oy.

R auma Marine Constructions (RMC) and its subsidiary RMC Defence Oy have been commissioned to build four Pohjanmaa-class multi-purpose corvettes for the Finnish Navy as part of the Squadron 2020 project. The high-performance multipurpose corvettes have been designed for varying conditions in the Baltic Sea, including icy conditions. RMC has made significant investments and improved its own capabilities throughout the construction of the first multi-purpose corvette. The corvettes are being built in a closed hall constructed specifically for this project as a means of guaranteeing the necessary safety and quality.

"RMC has an agreement to build four multi-purpose corvettes for the Navy in co-operation with the Finnish Defence Forces Logistics Command. Established co-operation with the client ensures that the vessels will meet the future needs of the Navy. During the construction of the



## MAXIMIZE EFFICIENCY ON BOARD

Our advanced technology reduces HVAC energy consumption by up to 20% on cruise ships! The latest compact design also saves valuable space on board, freeing up room for more productive and passenger-focused use.

#### LEADING HVAC SOLUTIONS FOR ALL CLIMATES AND CONDITIONS



KOJA Ltd. – Head Office PO Box 351, FI33101 Tampere Finland kojamarine@koja.fi





The entire Squadron 2020 project is expected to be completed in 2029.

#### Key dimensions of the multi-purpose corvettes:

Length:	117 m
Beam:	16.5 m
Draught:	5 m
Speed:	26 knots (48 km/h)
Crew:	70



first multi-purpose corvette, we did a great deal of development work that will greatly facilitate the construction of future vessels. Since we managed to get the construction of the second multi-purpose corvette underway already, I am pleased to say that we will be several weeks ahead of schedule," says **Mika Nieminen**, CEO and President of RMC.

The construction of the multi-purpose corvettes is related to national security and, thus, the Ministry of Defence, the Finnish Defence Forces Logistics Command (that commissioned the vessel), the Finnish Navy, Lloyd's Register classification and compliance company, and the management and employees from Rauma Marine Constructions (RMC) were present for the initiation of the production phase.

"The Defence Forces Logistics Command appreciates the mutual co-operation with RMC. We believe that this will provide the Navy with multi-purpose corvettes that will be optimal for performance in all conditions. RMC has met our specific requirements," affirms **Juha-Matti Ylitalo**, Brigadier General Engineering



## Pioneers in fuel systems



www.auramarine.com



and Deputy Chief of the Finnish Defence Forces Logistics Command.

The construction of the first of the multi-purpose corvettes has advanced well into the hull phase and is already beginning to take shape. The entire Squadron 2020 project is expected to be completed in 2029. The direct employment impact of the project in Finland is equivalent to more than 3,600 person-years.

"Our ability to build both warships and other special vessels, such as icebreakers, is top notch. We believe that there will be significant demand for these in the future. Our investments in green technology are drawing increasing interest from new clients," says Mika Nieminen, CEO and President of RMC.

#### RMC'S ORDER BOOK EXTENDS TO 2028

In March 2024, RMC, which is entirely Finnish-owned, celebrated ten years since its founding. During this time, the company

### Rauma shipyard has a long-standing tradition of collaboration with the Finnish Navy.

delivered the award-winning commercial car and passenger ferries MyStar (Tallink, 2022), Aurora Botnia (Wasaline, 2021) and Hammershus (Molslinjen, 2018).

In addition to the multi-purpose corvettes, the company is also currently building the second of two Spirit of Tasmania car and passenger ferries for the TT-Line Company in Australia. The first Spirit of Tasmania car ferry was delivered to the client in mid-September. RMC's current order book is worth over one billion euro.

RMC will build a total of four Pohjanmaa-class multi-purpose corvettes for the Finnish Navy. A multi-purpose corvette is a warship capable of effectively carrying out naval duties at sea all year round. These warships will be equipped with unique performance capabilities and properties as to make them ideal for the varying conditions of the Baltic Sea. They will also be able to operate in icy conditions.

Rauma shipyard has a long-standing tradition of collaboration with the Finnish Navy. Throughout history, four Haminaclass vessels, two Hämeenmaa-class minelayers, four Rauma-class missile boats and the hovercraft 'Tuuli' were built in Rauma. Rauma shipyard has also produced several icebreakers and other special vessels.

## Advanced hybrid technology for passenger ferry M/V 'Eloise'

by: ARI MONONEN

Constructed by the Uudenkaupungin Työvene shipyard on the southwestern coast of Finland, M/V 'Eloise' is the latest addition to Västtrafik's fleet of short-range commuter vessels operating in Gothenburg in Sweden. Utilising the latest hybrid technology, the passenger ferry is exceptionally environmentally friendly, with very low CO, emissions.

K nown as a builder of reliable and durable vessels, the Finnish shipyard in Uusikaupunki was given the challenging task of constructing new kinds of hybrid passenger vessels for short-range commuting, nine years ago.

"In 2013, we participated in the first bidding competition for building hybrid vessels," says deputy director **Juha Granqvist** from Uudenkaupungin Työvene Oy.

The competition had been arranged by Västtrafik, a company owned by the municipalities around the city of Gothenburg in southern Sweden. Västtrafik eventually decided to have a series of four vessels built.

The final one in the series, M/V Eloise, was ordered in the early spring of 2021. Construction was started at Uusikaupunki shipyard in May 2021.

#### NEWEST VESSEL READY FOR DELIVERY

The first two ships - *Älveli* and *Älfrida* - were completed in 2015. The third one, M/V Elvy, was delivered in 2018.

For the fourth vessel *Eloise*, shipbuilding was completed without any problems and even ahead of schedule.

"In April 2022, the new vessel was practically ready for delivery. And in May after the final tests, the vessel moved to Gothenburg where she will operate as a passenger ferry on Göta river," Granqvist explains.



The new vessel has a length of 33 metres and maximum speed of 11 knots. The ship can carry 298 passengers and 80 bicycles. She will be typically operated on short trips of only 5 to 10 minutes.

#### LONGER STRETCHES OF ELECTRICAL CRUISING

According to Mr. Granqvist, the hybrid technology that has been utilised in the construction of the four Västtrafik's vessels has been optimised ship by ship.

"Right from the start, Västtrafik wanted hybrid technology for the ships. For M/V Eloise, even more advanced hybrid solutions were called for," says Granqvist.

"In this case, we installed lighter but more efficent electric thrust motors and generators, delivered by Mets. The solu-



tion was based on permanent-magnet DC motors and the utilisation of larger-sized lithium batteries manufactured by EST Floattech in the Netherlands."

"All of the four Västtrafik vessels have truly lightweight construction. The hull is made of steel, but thin-layered materials have been used when possible."

In M/V *Eloise*, large batteries replace separate ballast constructions that were utilised aboard earlier ships in the series.

The new vessel can be operated electrically for longer periods of time than the three previous ships.

"In principle, similar solutions could be applied for the construction of even larger low-emission ships. Such technologies will undoubtedly be very much in demand in the near future," Granqvist expects.

More information: tyovene.com



Cafitesse filter coffee brewing system – the cost efficient and sustainable way to serve good coffee at sea

### JDE PEETS EQUIPPED AURORA BOTNIA WITH THE CAFITESSE COFFEE SYSTEM, UNIQUELY SUSTAINABLE AND BIO-SAFE, AS A NEWBUILDING

m/s Aurora Botnia is full of new sustainable innovations.

Vasa

Jacobs Douwe Egberts Peets (JDE Peets), the largest pure play coffee company in the world, services the AURORA BOTNIA with coffee from business lounge to crew mess. This vessel represents true forward thinking in the whole offshore industry. Consumers worldwide, but particularly in the Nordic area, are increasingly concerned about the human impact on Earth's environment. Coming generations will in everyday life prefer consumption habits, including travel, that they know to be more sustainable.

-1-

Avigare necesse est" was known thousands of years ago, even before coffee was discovered by humanity. Today, enjoying the aroma and taste of good coffee is part of seafaring. Regardless of if it is on the bridge in the middle of the night, or in a cruise liner gourmet restaurant, a cup of coffee feels like a part of good life.

One kilo of ground coffee produces about three kilos of wet grounds after brewing. Chief engineers know everything about coffee-fat clogged plumbing, not to mention disposing off large amounts of wet coffee grounds or stale coffee.



Cafitesse makes real specialty milk coffees for quick service in busy Aurora Botnia bar.







In the buffet Cafitesse makes a cup of black coffee in 2 seconds. Nobody needs to wait.

With the Cafitesse filter coffee system the wet grounds remain in the coffee factory, where they will convert into energy in the local power plant. The system produces a coffee cup in seconds, in unlimited number, but only on demand. Thus, precious coffee will not be wasted into sewers.

Additionally, Cafitesse produces coffee without contact with humans before it dispenses into cup. **This makes the system uniquely biohazard-safe in crowded passenger environments.** 

Passengers and crew of AURORA BOTNIA enjoy good coffee aboard, always fresh and hot 24/7, brewed by Cafitesse offshore capable coffee dispensers. Our system is saving energy aboard, resources ashore and leaves nothing to waste, as the packaging is fully recyclable.

#### A VESSEL MID-LIFE UPGRADE, OR EVEN ANNUAL YARD OVERHAUL, IS A GOLDEN OPPORTUNITY TO PUT ON-BOARD COFFEE SERVICES AND ECONOMICS ON TRACK

Many vessels world-wide have expensive and resource wasting piston coffee brewers installed. These require cumbersome and expensive daily maintenance and produce massive volumes of coffee waste.

When a vessel changes owner or trading route it often goes through refurbishment and classification at a shipyard. This is an excellent opportunity to completely overhaul the coffee services into profitability and cost-efficiency, not to mention sustainability.

Old coffee brewing equipment are often energy wasting and work intensive on already stretched crews.

On almost every Åland hardworking short-sea ferry, Cafitesse is the chosen coffee system. Cafeteria staff want to concentrate on servicing passengers with good food and coffee around the clock. When cafeterias are closed, the brewers still serve with a swipe payment system for bank cards.

Similarly, on icebreaker tours in the Northern Baltic Sea, Cafitesse brewers serve the international, very demanding clientele with top quality flat whites, lattes or just jugs of black coffee. It is important for the customer that every cup is perfect and quickly served.



Veteran icebreaker Sampo getting major coffee upgrade.



m/s Alfågeln and Knipan are robust short-sea ferries, equipped with Cafitesse.

The Cafitesse coffee service immediately changes passenger perception of good coffee on board and increases service level. Customer satisfaction is further increased if sustainability, biohazard safety and recycling is visibly communicated.

More information: www.novacafi.fi



*Icebreaker guests enjoy hot beverages before icy outdoors.* 

## Auramarine ammonia fuel system

### MODULAR, INSTALLATION-FRIENDLY FUEL SUPPLY SYSTEM FOR ENGINES AND OTHER AMMONIA CONSUMERS

A uramarine has 50 years of experience in delivering fuel supply systems for a variety of different fuels. These fuels include marine fuel oils (distillates and heavy residuals), natural gas, biofuels and methanol. The latest addition to this product offering is our ammonia fuel systems. Why ammonia? If produced in a sustainable way, ammonia can be a zerocarbon fuel and, together with methanol, a key part of shipping's energy transition to net zero. This is also what makes it a valuable addition to Auramarine's green portfolio.

Our primary focus is to deliver a safe, reliable and high quality fuel supply system.

We are, therefore, taking part in ongoing ammonia research and development projects. Furthermore, we actively co-operate with different ammonia experts, ensuring that we stay at the forefront of industry innovation.

The scope of our delivery is tailored to our customers' specific needs but, as with our methanol systems, we can provide holistic solutions that cover a comprehensive scope of delivery. Auramarine's ammonia fuel supply system is suitable for both two-stroke and four-stroke engines as well as other consumers. All safety, design and material requirements are strictly followed. Dedicated designs are available for both high-and low-pressure arrangements.

#### SYSTEM SCOPE

Auramarine's most comprehensive scope includes all necessary equipment from bunkering through to fuel delivery for onboard fuel consumers. More specifically: bunkering units, fuel supply units, master fuel valve manifold, reliquefying system, ammonia mitigation system (ARMS), gas and leak detection, bunkering water safety system, ammonia control and safety system, nitrogen generation system, as well as tank design. Features of some main components are presented next.





Example of a liquid ammonia system arrangement.

#### FUNCTIONS AND SAFETY FEATURES

#### **Bunkering station**

• Leak detection, water safety system and a ship-to-shore link.

#### Auramarine tank design

- Design for tank connection space (TCS) to C-type tanks.
- Integration allows for compact installation.

#### Ammonia fuel supply unit

- Actively regulates and maintains the correct fuel pressure and temperature.
- Measures fuel consumption.
- Filters impurities from liquid ammonia that could damage the consumer.

#### Master fuel valve manifold

• Allows for isolating and nitrogen purging of one or several consumer(s) from the system by utilizing double block-and-bleed arrangements.

#### Nitrogen generator

• For purging & inerting of the ammonia system.

#### Vapour & gas separators

- Separates ammonia vapour from liquid ammonia, where needed.
- Extraction of nitrogen and other trace gases from the ammonia system.

#### Ammonia reliquefying unit

• Reliquefies boil-off gases from the ammonia storage tank and other vapour sources.

#### Ammonia release mitigation system (ARMS)

- Featuring controlled combustion, capable of handling ammonia release from the system.
- Ammonia content measurement.

#### Ammonia gas detection system

- Detects possible gaseous leaks.
- Alarm levels for personnel protection and explosive atmosphere prevention.

#### Automation system

- Control of fuel supply unit and master fuel valve manifold functions.
- Automatic purging of block-and-bleed valves.
- ESD functions.

#### Pilot fuel supply & diesel backup system

• Auramarine can offer pilot fuel supply system and fuel supply system for the ships first fuel (e.g. bio-diesel).

More information: www.auramarine.com



ABB Oy Adwatec Oy Aker Arctic Technology Oy **Aker Solutions Finland Oy** Alfa Laval Aalborg Oy **Allstars Engineering Oy** ALMACO Group Oy Alumeco Finland Oy Ab Antti-Teollisuus Oy Apex-Marine Oy AQ Trafotek Oy Auramarine Oy **Beacon Finland Ltd Oy** Bertel O. Steen Power Solutions Finland Oy **Bluetech Finland Oy Cadmatic Oy Comatec Industrial and Marine Oy** 

**Deltamarin Oy DNY Finland Oy Edelstein Special Oy EIE Maskin Oy Elcoline Group Oy Elomatic Consulting & Engineering Oy** Emmanoa Oy **Enersense Offshore Oy** E.U. -Adhoc Project Oy Evac Oy **Foreship Oy FREJA Transport & Logistics Oy Furuno Finland Oy** Groke Technologies Oy Halton Marine Oy Helkama Bica Oy I.S. Mäkinen Oy

Jalmare Oy Jouka Oy Kaefer Oy Kavika Oy Kemppi Oy Koja Oy **KONE Hissit Oy** Kongsberg Maritime Finland Oy Laivasähkötyö Oy Lamor Corporation Oyj Lautex Oy Litana Finland Oy MAN Energy Solutions Sverige AB, Finland Branch Marine Diesel Finland Oy **Marioff Corporation Oy** Material Maintenance MaMa Oy Mecaplan Oy



#### Mere

Meriled Oy Merima Oy Mesekon Oy Metalliasennus Huuhka Oy Metos Oy Ab Meyer Turku Oy Millog Marine & Power Oy Mobimar Oy Napa Oy Navice Oy Nora flooring systems Oy Norsepower Oy NIT Naval Interior Team Ltd Oilon Oy **Onninen Oy** Orsap Oy

Paramet Konepaja Oy Parmarine Oy Pemamek Oy Piikkio Works Oy Planneri Group Oy Pocadel Oy Promeco Group Oy **Rauma Marine Constructions Oy** Rauman Meriteollisuuskiinteistöt Oy Reddal Helsinki Oy **R&M Ship Technologies Finland Oy Roxtec Finland Oy RR Site Service Oy** Saajos Oy Saint-Gobain Finland Oy S.A. Svendsen Oy **SBA Interior Oy** 

SeaKing Oy Shipbuilding Completion Oy SSAB Europe Oy Steerprop Oy Oy Stellio Ab Tehohydro Oy TEVO Lokomo Oy Turun Korjaustelakka Oy Uudenkaupungin Työvene Oy Vallila Marine Oy Vallila Marine Oy Valmet Oyj VEO Oy Wiima Logistics Oy Wärtsilä Oyj Abp

# Visit seatec.fi/magazine

airways wall and ceiling materials shipbuilding yards new ulsion all about maritime industry systems engines systems s audio and video systems communication equipment lightnin vigation ship management systems ship operation and automa

ering educatio and ventilatio re extinguishi s & fittings i s new all abou ystems materia ghtning system omation system onducts survey htal technolog e & cable ship floor coverin prime movers hology electro ring systems r



software prod :ems environme systems wire 'urnishing & f 'fit repairs t harine technol Hology monitor :ion design an ipment air-co ystems pumps rs and window iterials shipb about maritim mmunication e

and engineering education and research interior design so ditioning and ventilation cleaning systems cooling systems safety & fire extinguishing systems waste & waste water s all about maritime industry furnitures & fittings insulat d ceiling materials shipbuilding yards new building refit



0 ny directory

![](_page_39_Picture_0.jpeg)

#### AT-MARINE OY, AUTROSAFE

Uranuksenkuia 10 FI-01480 Vantaa Finland Phone +358 9 5494 2600 sales@atmarine.fi www.atmarine.fi

#### **Contact Persons**

Antti Pihlajamäki, antti.pihlajamaki@atmarine.fi Jussi Kujanpää, jussi kujanpaa@atmarine.fi

#### **Specialty Areas**

- Sales, maintenance, manufacturing, commissioning and planning
  Equipment:
- Navigation and communication systems
- Machine and fire alarm systems
- Engine room equipment, sound and light alarms, alarm panels and centers
  Temperature and pressure sensors
- Machine automation
- Escape and emergency lighting including special signs for exterior and interior decks
- · LED lamps, searchlights and window wipers Liquid Handling Equipment
- Special Electronic Devices

#### **Specialty Areas**

Specialty Areas Large Internal Combustion Engines' and Gas Turbines' exhaust and charge air silencers. Offshore-, paper- & pulp and other process industries large silencers. Small parts machining of e.g. valve seat inserts for medium speed engines and other high quality machined cylindrical parts. Shelter Solutions Equipment (Väestönsuoja tuotteet) for the building industry and complete Shelter Solutions together with Karanttia Perusturva Oy. Subcontracting of complex welded structures. 3-way and 2-way exhaust flow valves/ dampers. Design, simulation & measurement services, specialty on attenuation.

#### **KERABIT PINTA**

Rälssitie 6 FI-01510 Vantaa Finland www.kerabit.fi

#### **Contact Person**

Tomi Hulmi +358 40 548 3898, tomi.hulmi@kerabit.fi

#### **Facts & Figures**

Personnel: Established

#### Specialty Areas

- · Decking systems for the cruise industry
- Indoor- and outdoor-floorings to shipdecks
- Balcony floorings
  Epoxy- and acryl-floorings

![](_page_39_Picture_31.jpeg)

🖄 AT-Marine Oy

#### LAUTEX OY Ojakkalantie 13

FI-03100 Nummela Finland Phone +358 9 224 8810 sales@lautex.com www.lautex.com

#### **Contact Persons**

Antti Holappa, Sales Manager +358 50 386 1213, antti holappa@lautex.com Eveliina Välimäki, Sales Manager +358 50 436 4478, eveliina.valimaki@lautex.fi

#### Facts & Figures

Personnel: 53 1951 Established: Parent Company: Teknoma Oy

#### **Specialty Areas**

Ceilings for ship accommodation and public spaces, such as metal panels, profiles, tiles and gratings in aluminium or steel. The product range also includes B-0 and B-15 fire classified ceilings, domes, beams and special ceilings. All ceiling materials are possible to coat on different materials.

DORK

#### 1 8

#### MEYER TURKU OY

Telakkakatu 1, FI-20101 Turku, Finland Phone +358 10 6700 www.meyerturku.fi

#### **Contact Person**

Anna Hakala, Head of Communications, anna.hakala@meyerturku.fi

#### Facts & Figures

Net sales: 1 432,5 million € Personnel: 2 200

#### **Subsidiaries & Representatives**

Piikkio Works Oy, Shipbuilding Completion Oy, ENG'nD Oy

#### Specialty Areas

The Meyer Turku Oy shipyard is specialized in the construction of very demanding, innovative, and environmentally efficient cruise ships, car ferries, and special vessels. Our share of the global cruise construction market is over 10%, and our shipyard's order books extend to 2027. Our largest customers are Royal Caribbean International, the Finnish Border Guard, TUI Cruises and Carnival Cruise Line. Meyer Turku employs 2.000 top professionals and operates the Turku shipyard where vessels are built since 1737. Meyer Turku's subsidiaries are Piikkio Works Oy, a cabin factory located in Piikkiö, Shipbuilding Completion Oy, which offers complete deliveries to public spaces, and ENG'nD Oy, a shipbuilding, and offshore design company based in Rauma.We are constantly striving for more sustainable shipbuilding. We have identified five UN Agenda 2030 goals, which we can especially influence in our operations and cooperation with partners and customers.

> 1. Consulting 2. Equipment 3. Machinery

#### 1 2 7

See page 18 and 23

#### PORKKA FINLAND OY

P.O. Box 127 FI-33101 Tampere Finland Phone +358 10 201 9200 sales@porkka.com

#### www.porkka.com **Contact Person**

Petri Hiilloste petri.hiilloste@porkka.com

#### **Facts & Figures**

Turnover: EUR 30 million Personnel: 170 Established: 1962 Parent Company: Festivo Finland Oy

- Insulated fire doors A60, for cold stores
- Marine cold cabinets and counters

4. Materials 5. Safety 6. Systems

1 3 8 JTK POWER OY

### **Power**

Lautex®

Teollisuustie 6 FI-66600 Vöyri Finland Phone +358 20 781 2300 Fax +358 6 361 0383 info.fi@jtk-power.com www.jtk-power-group.com www.jtk-power-vss.com

#### Contact Person

Robert Ollus, Managing Director, robert.ollus@jtk-power.com

#### Facts & Figures

EUR 35 million Turnover: 85 in Finland, 40 in China Personnel Established 1998

![](_page_39_Picture_76.jpeg)

![](_page_39_Picture_78.jpeg)

## Pinta

#### 7

#### S.A. SVENDSEN OY

#### Rajatorpantie 41 C FI-01640 Vantaa Finland Phone +358 9 681 1170 Fax +358 9 6811 1768 www.sasvendsen.com

#### **Contact Person**

Kimmo Räisänen Managing Director kimmo.raisanen@sasvendsen.com

#### Facts & Figures

Turnover: EUR 1,5 million Personnel: 3 Established: 1981

#### **Specialty Areas**

- Complete turnkey deliveries for cruise ships and ferries
- Interior materials and custom made interior modules

#### • Refurbishments and refits for cruise ships and ferries

#### 2 4 9

#### SBA INTERIOR LTD

Hangontie 940 FI-10300 Karjaa Finland Phone +358 19 327 71 info@sba.fi www.sba.fi

![](_page_40_Picture_14.jpeg)

#### **Contact Persons**

Thomas Pökelmann, Sales Manager, thomas.pokelmann@sba.fi Johan Fagerlund, Technical Director, johan.fagerlund@sba.fi Aki Virta, Executive Vice President, aki.virta@sba.fi Henrik Grönvall, Sales & Project Manager, henrik.gronvall@sba.fi

#### **Facts & Figures**

Turnover:EUR 24 millionPersonnel:134Established:1985

#### **Specialty Areas**

NOTES

SBA is specialized in high-quality accommodation panelling systems and different type of beds for use on board ships. The wall panels and pullman bed bottoms are available with special custom-made printings. Another branch of SBA is subcontracting for the metal industry. SBA manufactures also a wide range of steel accessories for the maritime industry.

#### 9

#### SEASIDE INDUSTRY PARK RAUMA

Suojantie 5 FI-26100 Rauma Finland www.seasideindustry.com

![](_page_40_Picture_24.jpeg)

S.A.Svendsen Oy

#### Contact Person

Timo Luukkonen +358 40 550 1942 timo.luukkonen@seasideindustry.com

#### **Specialty Areas**

Seaside Industry Park is the hub of the maritime cluster in Rauma. Successful principal companies in shipbuilding and marine production with wide and efficient supplier network operate in the park. The region is utilizing versatile infrastructure and comprehensive common services. Seaside offers an efficient manufacturing environment and cooperation network that also enables smaller companies to participate in major projects and achieve competitive advantages and added value. Additional information: www.seasideindustry.com

![](_page_40_Picture_30.jpeg)

4. Materials 5. Safety 6. Systems

7. Turnkey Deliveries
 8. Yards
 9. Other

![](_page_41_Picture_0.jpeg)

#### **BUSINESS RESIDENTIAL SERVICES** BUSINESS LEVEL APARTMENT HOTEL IN CENTRE HELSINKI FROM 51 EUROS/NIGHT

![](_page_42_Picture_0.jpeg)

![](_page_42_Picture_1.jpeg)

![](_page_43_Picture_0.jpeg)

ALD

50 % lighter. Durable. Airtight.

## SEA CLIMAVER® your all-in-one duct system

#### A UNIQUE PRODUCT TO REPLACE METAL DUCTS, PROVIDING STATE-OF-THE-ART INSULATION AND COMFORT.

Made from dense and rigid glass wool boards, SEA CLIMAVER<sup>®</sup> selfsupporting air ducts are a cost-effective, easy-to-install alternative to traditional insulated metal ducts.

For futher information, please contact: herkko.miettinen@saint-gobain.com

![](_page_43_Picture_6.jpeg)