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International Maritime Review



Marine Goes Digital

Two new advanced icebreakers on
Aker Arctic's drawing board

Revitalised Meyer Turku handed
over Mein Schiff 4



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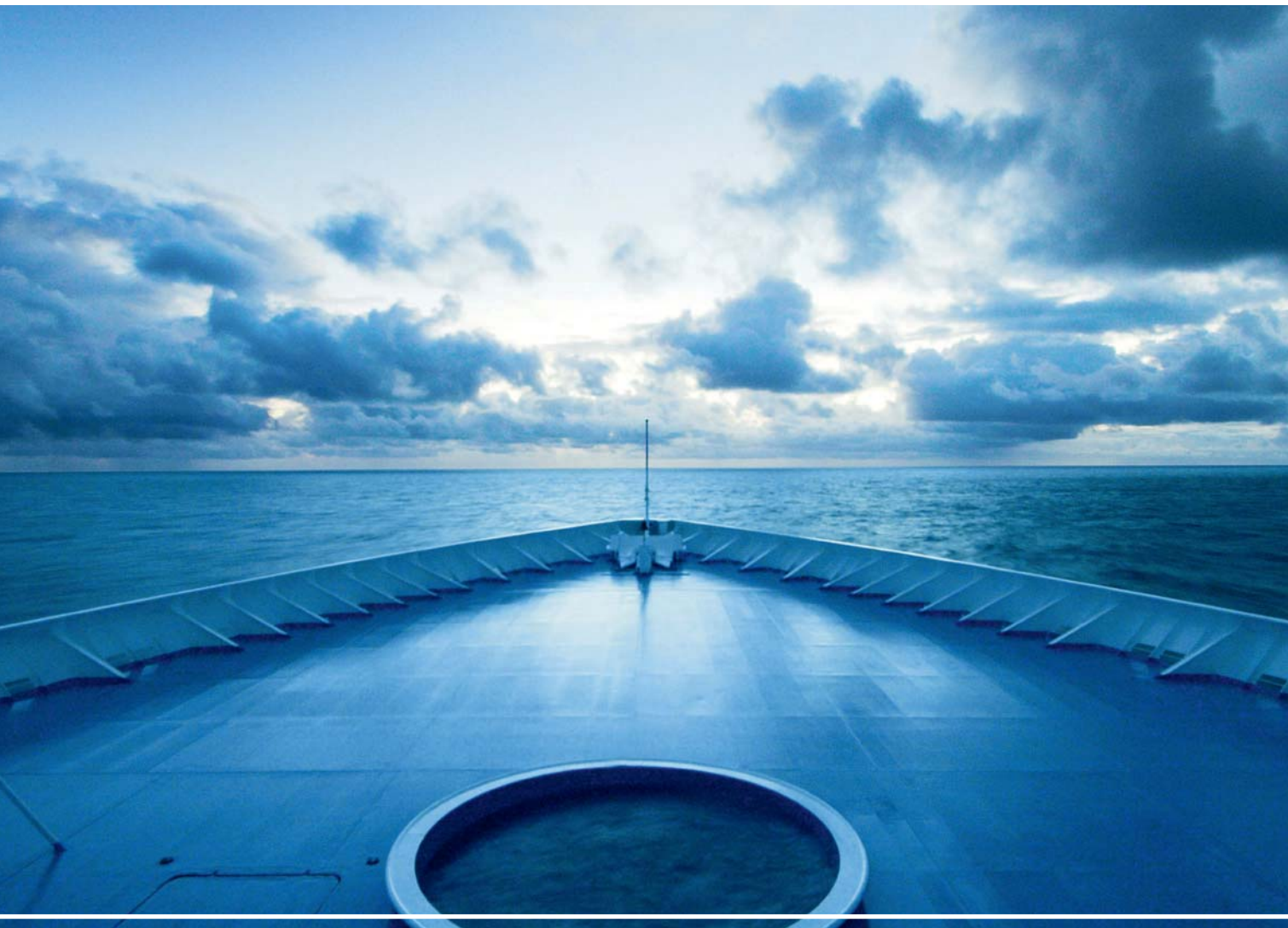
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COMEBACK KING

The Finnish marine industry is back – with a vengeance. Last year, the turnover for Finnish marine industry climbed from €5.5 billion to 6 billion, even though brisk winds still dominate the economy in Finland. For example, the Turku shipyard has been completely rejuvenated under German ownership as Meyer Werft wasted no time in turning the course of the shipyard around.

The Meyer family – together with the State of Finland – acquired Turku shipyard from STX Europe in September 2014 with the understanding that the state will make its exit in due time. “Due time” became sooner than later as Meyer Werft bought the remaining 30 % from the State in May 2015.

Jan Meyer, CEO of Meyer Turku, explains the move by saying that at the time of the purchase, Meyer was only operating shipyards in Germany and investment in Finland was a big step for the family business. He credits the Finnish Government for making the deal possible – but now it was time for Turku to start sailing on her own. The new owner is looking to add some muscle to the operations: while the Turku shipyard capacity is 100 000 GT, there are plans to increase capacity to 180 000 GT in a couple of years.

Jan Meyer expresses a hope that the decision to acquire total ownership is received as a “sign of confidence” that Meyer Werft is looking to make Turku shipyard a long-term shipbuilding success. This message has, indeed, been heard loud and clear in the industry.

The Finnish marine industry has been craving for some good news for a while. After hitting rock bottom in 2011, the climb back towards respectability has been long and hard – and as the Finnish marine cluster covers around 2 900 companies, the impact of tough times is felt widely.

Today, the marine cluster employs more than 43 000 people in operations directly related to the marine sector and of these, more than 21 000 people are employed by the marine industry. Spearheaded by excellent product development, these marine industry companies have reached a leading market position in several segments.

During the last few years, as the pickings have been slim domestically, these subcontractors have ventured further out. For instance, 15 percent of the machinery, equipment and subcontracting of the Oasis 3 cruise ship – currently under construction in France – has been bought from Finland.

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When Meyer Werft and the Finnish State acquired Turku shipyard from STX Europe in September 2014, it was understood that the State would only stick around for the transition period – perhaps a couple of years. Jan Meyer, Chief Executive Officer of Meyer Turku, says that the company wanted to be extra cautious throughout the process: “This was our first major purchase outside of Germany, so we wanted to think things through very well.”

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STX France's St. Nazaire shipyard is in the process of producing the largest cruise ship in the world: 'Harmony of the Seas' ordered by Royal Caribbean International. This will be the third Oasis-class ship and it is expected to be ready for use by the summer of 2016. Along with the French professionals, numerous Finnish companies are taking part in the shipbuilding.

34 New projects will enhance Finland's maritime export efforts

Two joint maritime projects, TRIMMI and MERIT Turku, strive to help the Finnish maritime industry to become a globally competitive, prosperous and competent industry, with initiatives for business improvements in specific global market areas. Both projects aim to strengthen cooperation and collaboration between various operators in the Finnish maritime industry, maritime cluster, and ICT sectors.

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Full Steam Ahead!

GERMAN OWNERSHIP HAS REVITALISED TURKU THE SHIPYARD – AND CEO JAN MEYER SEES MORE GOOD THINGS IN THE HORIZON

by: SAMI J. ANTEROINEN

photos: MEYER TURKU OY



"We saw people that were passionate and professional about shipbuilding. Put together with our Papenburg shipyard, we felt that this was a great combination for future success," says Jan Meyer, Chief Executive Officer of Meyer Turku.



“ We saw people that were passionate and professional about shipbuilding.”

The Turku shipyard is now thriving under 100% German ownership. On May 6, Meyer Werft purchased the remaining 30 % of the shipyard from the State of Finland, making the German family company the sole owner of the venerable shipyard that has given the world such industry icons as Oasis and Allure of the Seas.

When Meyer Werft and the Finnish State acquired Turku shipyard from STX Europe in September 2014, it was understood that the State would only stick around for the transition period – perhaps a couple of years. Jan Meyer, Chief Executive Officer of Meyer Turku, says that the company wanted to be extra cautious throughout the process:

“This was our first major purchase outside of Germany, so we wanted to think things through very well.” However, in just a matter of months the Germans became convinced that the Turku shipyard does have a solid future – and made their move to acquire total ownership.

“Since there were no good reasons against it, we decided to do it sooner

rather than later,” Meyer says, adding that it’s still not all sunshine and smooth sailing from here on out:

“The normal business risks still remain.”

DOUBLE VISION

Together, the Meyer Werft shipyards at Papenburg and Turku form a “dynamic





duo" that can handle just about any cruise ship order – or an entire series. Case in point: Meyer Turku handed over Mein Schiff 4 to TUI Cruises on May 8 (actually making it the first delivery with Meyer Werft as the sole owner) and the keel laying ceremony for Mein Schiff 5 will take place in June – as the production of Mein Schiff 6 will start. From the looks of it, Turku and Papenburg are putting out ships like hamburgers and order books are getting fat.

The effectiveness and quality-orientation of Turku shipyard is what attracted the Germans in the first place. "While the shipyard's technical assets and facilities are ageing, the crew working at the yard is world-class," Jan Meyer believes.

"We saw people that were passionate and professional about shipbuilding. Put together with our Papenburg shipyard, we felt that this was a great combination for future success."

Arriving in Turku, the Germans found that Turku shipyard shared the same emphasis on making the best possible product. There were differences in the processes, sure, but this was perceived as an opportunity to learn:

"We felt – and still do – that we can have the best of both worlds."

COMMON GROUND

Also, there has been no real culture clash to speak of. Germans and Finns seem quite similar in the sense that they focus on the business at hand and work hard to overcome problems and get results.

"I keep hearing that Finns are very quiet, but people don't talk very much where I come from in Germany, either," Meyer laughs. As Meyer Werft had previously used Finnish subcontractors for a long, long time, there was already some familiarity with the Finnish mentality – so this acquisition was no leap into total unknown.

But what about the reputation of both Germany and Finland as technology-oriented and engineer-driven? - Jan Meyer admits that Germany's industrial roots run deep, but he still feels that the engineering mindset is stronger in Finland:



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"And I definitely like it," he grins. In Meyer's mind, engineering is all about problem-solving and – more often than not – finding the best compromise out there. Building the greatest cruise ships on the planet means that you have to make sure that the design is solid, the ships are safe and eco-friendly, everything from air conditioning to entertainment works flawlessly – and that the total package is affordable.

"A lot of expertise has to come together in the making of these floating cities."

SOFTER SIDE OF SYNERGY

According to Meyer, there have been some expectations back home that Turku shipyard will undergo a process of "German-

**// A lot of expertise
has to come
together in the making
of these floating cities.**

isation" – but that's not in the cards right now, he says. In fact, Meyer believes that such actions could prove "dangerous" if carried out without great caution.

"Instead, we want to keep developing towards each other and move into something new, together," he outlines the strategy.

Since September, the new CEO has been constantly asked about invest-

ments in Turku – the previous owner had neglected to do any upgrades, what would the Germans do? – Meyer confirms that there are plans to boost the annual capacity of the yard from the present 100 000 GT to 180 000 GT by 2017–2018. But while the destination is clear, Meyer acknowledges that there are many ways to get there.

"We want to increase our input, but the question is, how do we do it? We are presently investigating the options," he says, adding that the all-mighty order book also comes into play here. Meyer Werft is looking to lock down a blockbuster deal over the summer and this would, of course, have ramifications at the yards.



Frank Kuhlmann CFO of TUI Cruises, Wybcke Meier CEO of TUI Cruises, Jan Meyer CEO of Meyer Turku Oy and Tapani Pulli Deputy Yard Director, Meyer Turku Oy

ALWAYS INVEST IN PEOPLE

At present, the options involve things such as lengthening the dock or speeding up the throughput time, but Meyer points out that a great variety of functions – from design office to steel production – impact capacity. Therefore, Meyer Werft recognises that investments in both ‘hardware’ and ‘software’ are needed – and the CEO has previously commented that education and training are key issues in ushering in this new era.

“We are a family company and have always felt that is worthwhile to invest in people. When you provide training for someone, it may not pay off in two years, but it will pay off in a big way in five or

**// In the business
of building
cruise ships, you rely
on your networks.**

ten years,” Meyer says. And it’s not just that the industry needs more naval engineers: experts from all sectors must pool in resources to get the job done.

It goes without saying that Jan Meyer is a big fan of the Turku subcontractor network – with over 500 companies – that provides a competitive advantage that is almost impossible to match.

“In the business of building cruise ships, you rely on your networks – and even if you take the operations of one shipyard and move them to another location, it’s not so easy to move the entire network there.”

LOCAL POWER

Proximity works both ways: the shipyard can rely on subcontractors that operate nearby without logistical hassles and subcontractors are pleased to have such a strong local client. It’s a partnership that benefits all sides, and Meyer wants to keep developing that collaboration:

“We fill up that order pipeline, so that the entire network can prosper.” ■

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Marine Goes Digital

THE NEXT WAVE
OF FINNISH
ICT-BASED
SOLUTIONS FOR
MARITIME INDUSTRY
IS GAINING
MOMENTUM

by: SAMI J. ANTEROINEN

photos: PORT OF HELSINKI LTD





The Finnish marine cluster encompasses world-class expertise, but how is the digital revolution proceeding upon the waves? At present, there is a genuine smart maritime technology cluster emerging in Finland – spearheaded by sectors, where the Finns have leading competencies: the maritime technology industry and the information and communication technology industry.

// Digitalisation
has lowered
the barriers between
industries.



In the maritime sector, Finland is perhaps globally best known for its icebreakers and cruise ships. However, Finland has also provided ICT-based systems and solutions for the maritime industry for a very long time. Many of these players are global market leaders in their own fields; com-

panies such as NAPA, Eniram, Wärtsilä, ABB Marine, Rolls-Royce and Steerprop.

Lately, the maritime sector has attracted also a wide range of traditional information technology and software companies, such as Symbio, Tieto and Ixonos, who hope to find new customers from

this new sector. According to Jussi Nissilä, Senior Analyst for Oxford Research Finland, this may still be just the tip of the iceberg:

“Digitalisation has lowered the barriers between industries and it is increasingly easier to provide the same solutions



Finland is globally
best known for its
icebreakers and cruise ships.

to many different industries,” Nissilä points out.

THE MISSING LINK

Nissilä was also responsible for composing the recent study on Smart Maritime which revealed that a key challenge for

the emerging smart maritime technology cluster in Finland is the lack of existing contacts between the ICT sector and the maritime sector.

“Another challenge reported by the interviewed companies is the perceived conservatism of the maritime sector, which

was seen to slow down the adoption of innovations and new solutions,” Nissilä says, adding that a third challenge links with the peculiarity of the maritime sector in terms of client needs, possibilities to apply technological solutions and regulations.





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// The maritime sector is a global sector.

Nevertheless, there are no obstacles in the field that cannot be overcome. In fact, Nissilä believes that many of these challenges can be turned into business opportunities.

"The maritime sector is a global sector, which means that novel solutions – that deal with, for example, limited telecommunications bandwidth at sea or regulatory requirements – have a great market potential," Nissilä says.

WANTED: DYNAMIC DATA

At the moment, the seaborne telecommunications are quite tricky since the ships are dependent on expensive satellite link-ups. This also sets some limits to the amount of data that can be relayed back to the shore – crippling the full utilisation of the ICT arsenal.

Another arena that is ripe for development is the advanced data-based analysis services. According to the study, the data analysing business holds great promise, if information can flow freely from one stakeholder to another – but this is easier said than done. Immaterial rights and data security are major concerns here, making, in turn, companies quite cautious.

Still, Nissilä points out that data security issues did not surface very strongly in the interviews conducted for the study – and Finnish know-how in data security provides firepower to deal with the problems before they become a plague.

WHO NEEDS A CREW?

The corporate interviews of the study reveal that many companies are presently looking into the opportunities presented

by the industrial internet. It appears that the industrial internet is moving towards becoming a common platform, readily available for various sectors. Things such as remote monitoring, pre-emptive maintenance and fleet e-management are highly attractive in the eyes of the marine players.

According to Jussi Nissilä, the ultimate achievement for remote monitoring would be an unmanned ship – even if many of the interviewed experts felt that this vision is still a bit premature. Nissilä points out that while the industrial internet is a real game-changer in the marine sector, too, the change will not take place overnight.

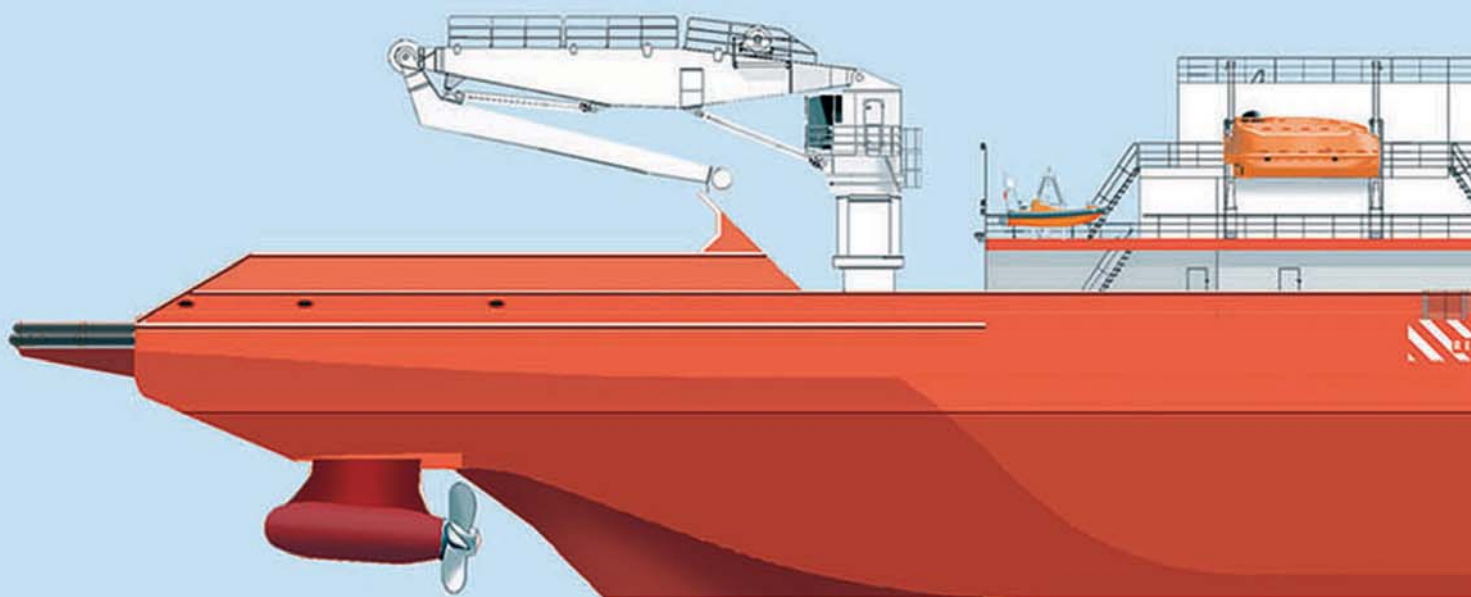
"In addition, it is important to separate the prevailing hype from those very real opportunities that are emerging from this technology." ■

Two new advanced icebreakers on Aker Arctic's drawing board

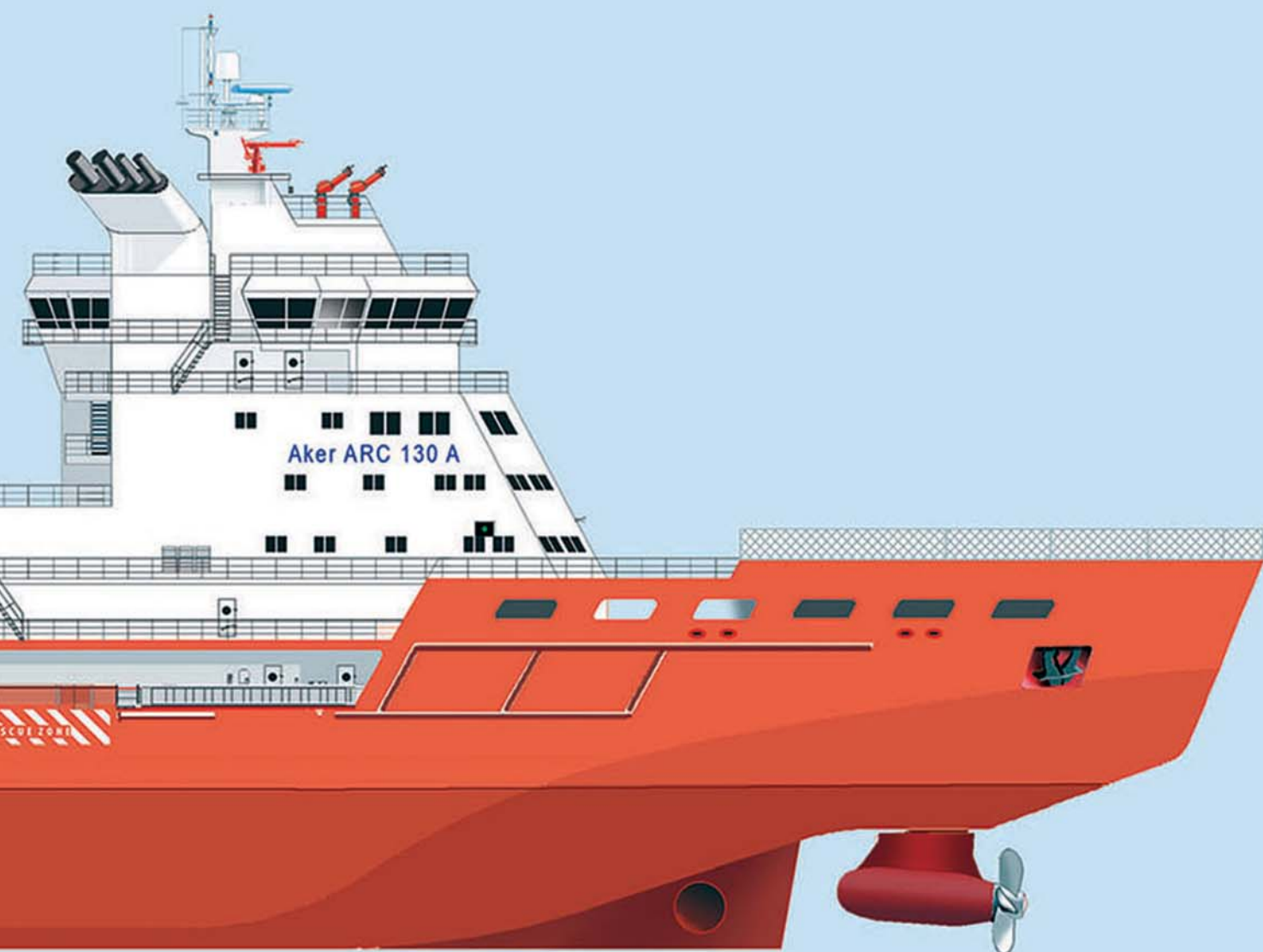
by: MERJA KIHLE AND ARI MONONEN

photos: AKER ARCTIC TECHNOLOGY INC

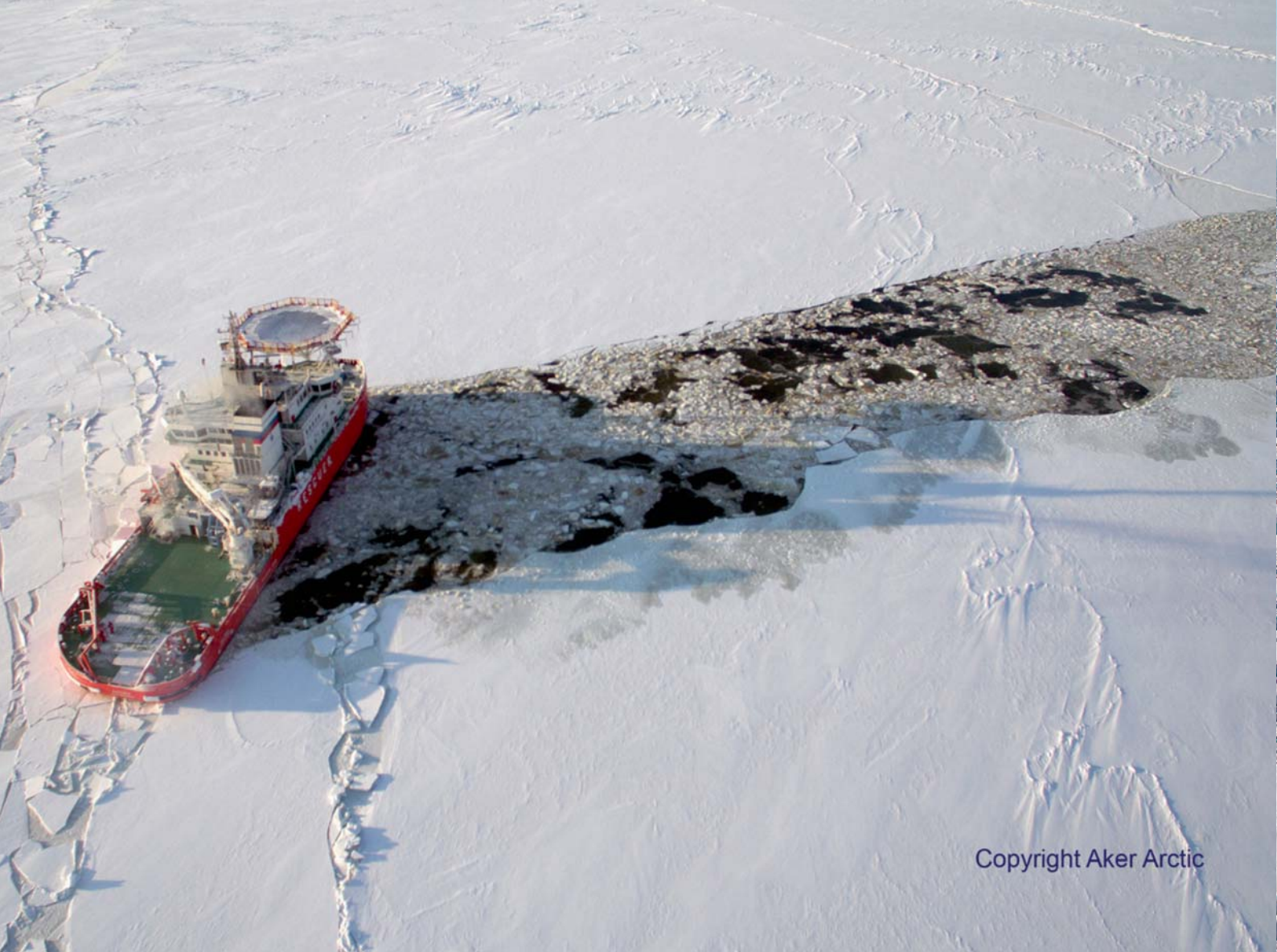
Aker Arctic Technology in Helsinki has agreed to design two new icebreakers for Vyborg Shipyard JSC. They will be utilised in the oil terminal operated by LLC Gazprom Neft Novy Port in the Gulf of Ob. Based on the new Aker ARC 130 A design, the vessels will be well equipped and capable to break ice in highly demanding arctic environments.



The new ARC 130A icebreakers will be used in arctic environments.



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The icebreakers of Aker ARC 130 A design will have an approximate overall length of 122 metres and have a beam of 25 metres. The vessels have a diesel-electric power plant.

The new design represents the latest development of icebreaking technology that Aker Arctic has now adapted also for Arctic vessels. The value of the contract has not been made public but Aker Arctic has described it as substantial.

The new icebreakers will be classified by the Russian Maritime Register of Shipping and their ice class will be Icebreaker8.

"The contract for the design of two new icebreakers was made a while ago,

but the deal became a reality in April 2015", says Mr. Reko-Antti Suojanen, Managing Director of Aker Arctic Technology Inc.

"According to schedule, the construction of the first ship will commence before the end of 2015. Construction work will take a long time. The first icebreaker is expected to be ready for delivery in the course of the year 2017."

SHIPS TO BE BUILT AT VYBORG SHIPYARD

The new icebreakers will eventually be used in the Gulf of Ob area.

"In this region, new icebreaker

capacity will be needed for the liquefied natural gas (LNG) project, as well as for new shipways and for the major port project in Novy Port", Suojanen recounts.

Already, an oil terminal operated by LLC Gazprom Neft has been taken into use in Novy Port.

"Aker Arctic Technology has designed a new kind of icebreaker concept utilising three azimuths," Mr. Suojanen points out.

"This means a more modern and larger-scale solution for icebreaking in arctic conditions. The ships will be bigger and stronger than before and they will be equipped with three azimuth thrust propellers."



"The design work for the two new icebreakers for Gazprom Neft has already commenced at Aker Arctic Technology Inc and will continue for approximately nine months onwards."

The shipbuilding work for both icebreakers is to take place at Vyborg Shipyard.

"Shipbuilding can start with the ship's hull even before all of the design work has been completed at Aker Arctic," says Suojanen.

"The contract also includes a clause for a licence agreement. If the customer wishes to construct further ships of the same type, Aker Arctic Technology will

receive due compensation for each additional ship."

// The ships will be bigger and stronger.

MORE CAPABILITY FOR ICEBREAKING

The contract for the two icebreakers is the first one agreed upon between Aker Arctic Technology and the Russian company Vyborg Shipyard JSC. Mr. Suojanen notes that the contract will provide full employment for Aker Arctic's personnel for several months onwards.

"It also indicates that we have the capacity to build top-notch vessels for highly demanding operating environments."

Currently, a total of 15 marine designers are working on the new design.

The two new icebreakers are an example of a further development of the previous Aker ARC 130 icebreaker design concept that was originally developed for the Finnish Transport Agency.

The new icebreaker type – Aker ARC 130 A – will utilise similar propulsion concept that consists of three azimuth thrusters. Two of them are located in the stern and one in the bow of the vessel.

The propulsion power and ice-strengthening of the vessels have been increased to adapt the ships to the operational requirements encountered in the Arctic seas.

"The previously designed ARC 130 icebreakers were to be used in the Baltic Sea environment. For the Arctic regions, a more sturdy ice-class and a better icebreaking capability will be needed."

The new type of vessel is designed to break 2-metre level ice with 0.3-metre snow cover in two directions. It can also operate in thick consolidated brash ice and has improved maneuverability in various kinds of ice conditions.

FURTHER DEMAND FOR ARCTIC VESSELS

Another difference to the older design is that the new icebreakers will run on diesel oil, instead of LNG fuel.

"They are also slightly larger in size – both in length and in width. Furthermore, a new positioning system will be added," Suojanen explains.

// The new type of vessel is designed to break 2-metre level ice.

Compared to 19 megawatts (MW) propulsion power in the older ARC 130 type icebreakers, the new ARC 130 A type ships are equipped with nearly 22 MW of propulsion power.

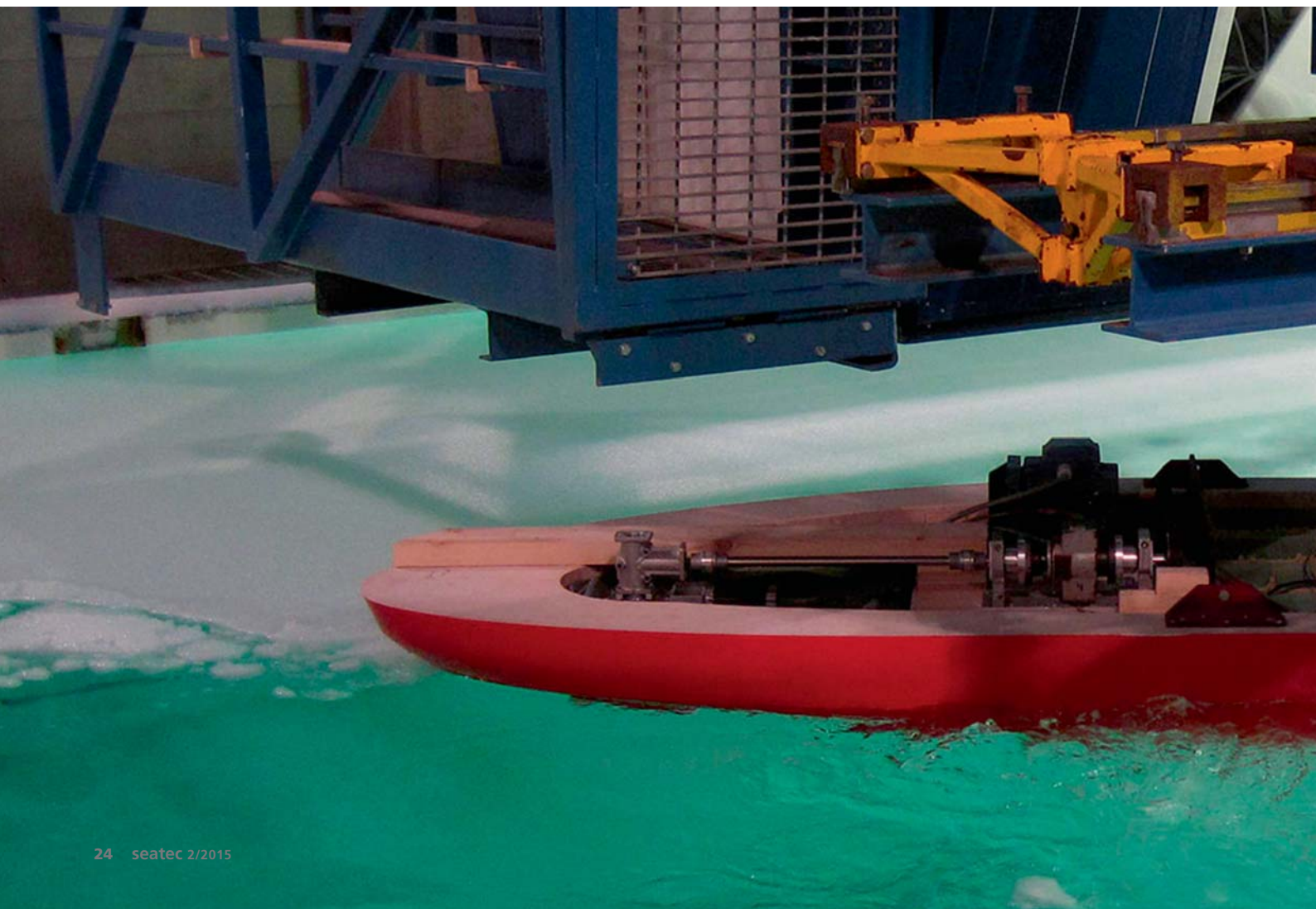
Mr. Suojanen emphasises that advanced icebreakers of this kind have not previously been designed in Finland.

"This is the first design for a large icebreaker vessel that is equipped with a rotatable propeller device, yielding the capability to break ice in more directions than one."

At present, negotiations are ongoing for possible new projects for arctic vessels. Increasing ship traffic in the arctic regions will inevitably increase the need for new icebreakers and other specialised vessels.

Aker Arctic Technology has successfully completed icebreaking tests for another new vessel type with three azimuth thrusters that can be utilised for breaking ice in lateral direction. This design is cost-efficient, allowing the vessel to break more ice with less power.

"In addition, we tested the new automation system designed to control the ship's movements. The results were even better than we expected," rejoices Suojanen. ■



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Extra large cruise ship being built in France

by: MERJA KIHLE AND ARI MONONEN

photos: ROYAL CARIBBEAN CRUISES LTD



STX France's St. Nazaire shipyard is in the process of producing the largest cruise ship in the world: 'Harmony of the Seas' ordered by Royal Caribbean International. This will be the third Oasis-class ship and it is expected to be ready for use by the summer of 2016.

Along with the French professionals, numerous Finnish companies are taking part in the shipbuilding.

Once completed, the third Oasis-class ship will be 362.15 metres in length.



Cruise ship 'Harmony of the Seas' under construction at STX France's St. Nazaire shipyard.



In December 2012, Royal Caribbean ordered the third Oasis-class ship from STX France's shipyard in St. Nazaire. Keel-laying ceremony was held on 9 May, 2014.

The ship will be larger than the preceding Oasis-class ships 'Oasis of the Seas' and 'Allure of the Seas' and will in fact be the biggest of its kind in the world. It will exceed the dimensions of earlier ships in the Oasis-class by 2.15 meters length and by 5.5 meters width.

The length of 'Harmony of the Seas'

will be 362.15 metres. The ship can carry more than 6 000 passengers. With gross tonnage of 227 700 GT, the new ship will also outweigh its Oasis-class predecessors by 2 418 gross tons.

ENERGY EFFICIENCY IN AIR CONDITIONING

A number of Finnish marine subcontractors participate in the construction of 'Oasis 3,' or 'Harmony of the Seas.'

Koja Marine's Director Esko Nou-

siainen notes that the ship under construction will be equipped with several types of air-conditioning systems.


"Overall, the ship will have hundreds of units that are related to air-conditioning," he estimates.

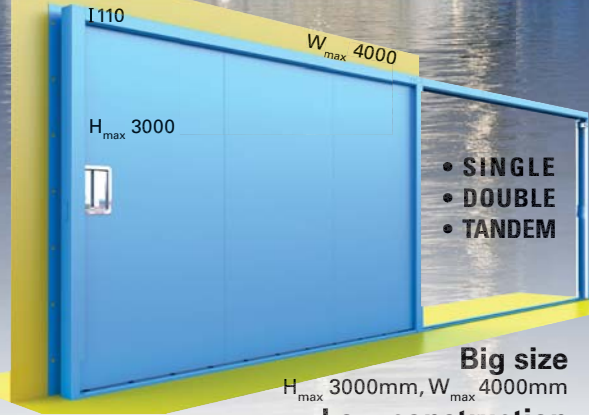
According to Mr. Nousiainen, the air-conditioning designs were originally based on the systems of the previous cruise ship 'Allure of the Seas' but with quite a few alterations suggested by the cruise line.



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**Harmony of the
Seas will be the
third Oasis-class ship.**

"However, the alterations are not very major in character. Some of them were made on the grounds of improving energy-efficiency on board."

"Energy consumption of the air-conditioning systems has decreased along with various new fan coil solutions. Another factor has been the principle of operating air-conditioning only as needed. Air-conditioning of different sections of the ship is now controlled by the directions of the passenger flow, with stringent checks of

indoor air quality being made on a constant basis," Nousiainen explains.

VARIOUS SOLUTIONS FOR NOISE-REDUCTION

Mr. Nousiainen says that Koja Marine was among the first subcontractors to receive an order for the new ship project from STX France.


"Aboard cruise ships, air-conditioning systems take up more space than any other single technical system. Conse-

quently, space requirements for such systems need to be pinpointed at an early stage in the ship design process."

"The actual design for the air-conditioning systems started immediately after the contract had been signed in April 2013."

Particular care was taken to ensure that the proper levels of noise reduction were accomplished for the ship's air-conditioning.

"Different types of solutions for noise

 Numerous Finnish
companies
are taking part in the
shipbuilding.



The ship will feature three multi-story waterslides, all of which twist and turn over Central Park 10 decks below.



reduction were utilised, with the aid of high-quality designing tools used in the noise reduction calculations," recounts Nousiainen.

Just now, air-conditioning installations are being finalised on board the ship. Deliveries of the A/C units and components amounted to several hundred truckloads.

"By June 2015, all of the air-conditioning units have been delivered to the shipyard and also installed to a large extent. According to schedule, the first A/C systems will be taken into use in June. It goes without saying that representatives of Koja Marine will be at the shipyard to supervise the work related to the commissioning of the ship's air-conditioning systems," Nousiainen mentions.

Koja Marine was responsible for the design, deliveries, electrical cabling, automation and commissioning of the air-conditioning systems, while STX's shipyard handled the installation.

"Considering the size of the overall delivery, the A/C system installations have been very nicely on schedule. Cooperation with the shipyard has also worked out excellently," rejoices Nousiainen.

According to him, the 'Oasis 4' cruise ship – to be built later by STX France's shipyard – will be equipped with similar air-conditioning systems.

MAJOR CONTRACT FOR INTERIOR ELEMENTS

Based in Lieksa in Eastern Finland, Joptek Oy is the manufacturer and subcontractor for STX France for several types of external and internal elements for 'Harmony of the Seas.' The contract includes 2 000 floor elements for the ship's bathrooms and 2 000 cabin doors plus 2 067 indoor or outdoor balcony modules. The installation of Joptek's elements was started at St. Nazaire shipyard in July 2014.

Joptek's Sales Director Minna Hämäläinen says the contract was



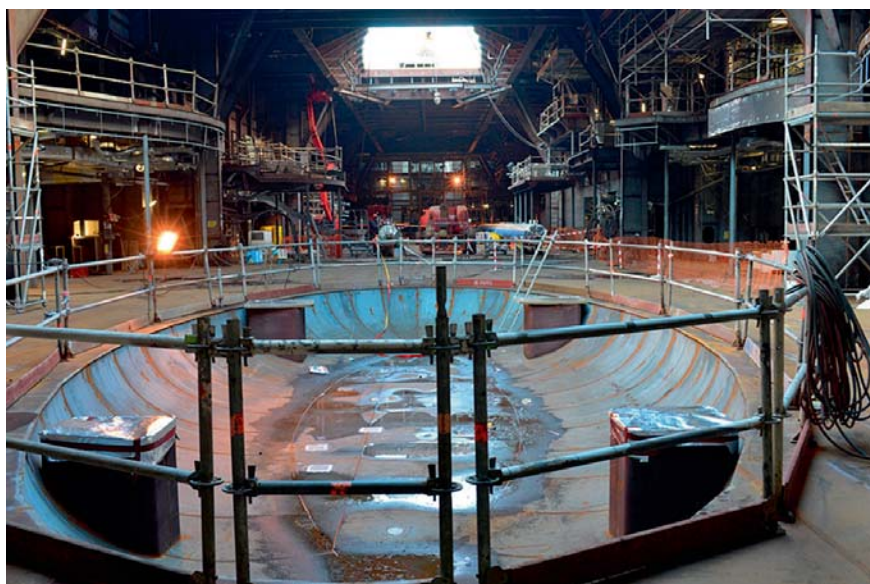
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quite significant from Joptek's standpoint. The company already has a contract for similar elements for the sister ship 'Oasis 4'.

"Along with this deal, Joptek is now one of the largest subcontractors for the St. Nazaire shipyard. For each ship, the value of the contract is in the order several million euros. This is by far the largest ever contract with a shipyard in Joptek's history," she recounts.

"Now in May 2015, the installation of elements for the first ship is already in the final stages."

Joptek Oy had already supplied interior and exterior elements for various large cruise ships that were built in Turku shipyard in Finland. After tough negotiations that lasted six months, STX France's contract was awarded to the company.

The elements were transported by trucks to St. Nazaire. At the shipyard, they were assembled and pre-installed by Joptek's local partner Eiffel Industries.

"Finnish marine subcontractors should perhaps be more active in their attempts to gain headway in export markets. In the case of France, it helps when you can communicate fluently in the French language," Hämmäläinen suggests.

"Certainly you should be competitive and expect to encounter severe competition and lots of hard work."

She asserts that Joptek Oy will definitely take part in export marine projects even in the future.



DECK COATING FROM CERTIFIED MATERIALS

Floor coatings for part of the ship's floor and deck surfaces are supplied by Cancotronic Oy. The Finnish company has had long-standing cooperation with the well-known German coating manufacturer G. Theodor Freese GmbH & Co KG.

"Cancotronic Oy has previously supplied coating materials to 'Viking Grace' and other cruise ships built by shipyards in Finland, including 'Mein Schiff 3' and 'Mein Schiff 4' ordered by TUI Cruises. In the case of these ships, we were responsible for approximately 40 percent of the



The newest addition to Aker Arctic's portfolio is a real time full mission Ice Simulator.

Aker Arctic

Profitable and sustainable concepts for icy waters

Aker Arctic and Vyborg Shipyard have confirmed a contract for the design of two new icebreakers based on Aker ARC 130 A design.

First Arctic module carrier for Yamal LNG plant developed in close cooperation with ZPMC- Red Box Energy Services.



Aker ARC 100 design, the world's first oblique icebreaking emergency and rescue vessel BALTIKA can break sideways 50 m wide channel in 0.6 m thick ice.



www.akerarctic.fi

indoor deck coatings," Managing Director Petteri Nurminen says.

"Now we have expanded our operations to export projects, for instance in France. Cancotronic was chosen for the 'Harmony of the Seas' project after a bidding competition."

At present, approximately 2 to 3 installation workers are applying the deck coatings at St. Nazaire shipyard. So far, an area of some 700 square metres has been coated.

"Coatings for ship decks need to be manufactured from certified materials. Standard floor coatings cannot be used since noise-reduction and other factors must be taken into account," Nurminen emphasises.

SPECIAL LIFTS AND ELEVATORS

The Finnish company Kone Elevators Ltd. will supply the ship's elevators and escalators. The solution consists of 41 passenger

The ship can carry more than 6 000 passengers.

and service lifts, including 12 scenic elevators with glass cabins, and two escalators.

"They are our most energy-efficient solutions and integrate the latest innovations in energy-saving," says Jarkko Pekkala, Head of Marine Sales in Kone.

"For example, all the elevators onboard 'Harmony of the Seas' are equipped with regenerative drive systems through which excess braking energy is recovered and transformed into power used for e.g. lighting or air conditioning."

"Our measurements indicate reductions of up to 35 percent of energy consumed by elevators equipped with Kone Ecodisc hoisting machine and regenerative drive. The two Ecomaster escalators also

incorporate energy saving features, such as stand-by mode when they are not in use."

Installation of the equipment is also adapted to conform to a vessel of this size.

"Most of the elevator trunks, manufactured in Kone's facilities in Europe, will be prefabricated and transported in several modules to the shipyard."

"The equipment will be travelling by sea and trucks to France where our team at the shipyard will take care of the installation, testing, and commissioning," explains Ari Winter, Head of Marine Business in Kone.

"We started discussions with the shipyard and ship-owner already in the early planning phases, to ensure everything will go smoothly. We also run complex passenger traffic calculations and simulations to help ship designers decide on the suitable amount of elevators, as well as their size and positioning in the vessel," says Winter. ■

New projects will enhance Finland's maritime export efforts

by: MERJA KIHILÄ AND ARI MONONEN

photo: PORT OF KIEL

Two joint maritime projects, TRIMMI and MERIT Turku, strive to help the Finnish maritime industry to become a globally competitive, prosperous and competent industry, with initiatives for business improvements in specific global market areas. Both projects aim to strengthen cooperation and collaboration between various operators in the Finnish maritime industry, maritime cluster, and ICT sectors.





// The companies
realise that this is
a great way to improve
global visibility.



Instigated by Machine Technology Center Turku Ltd., the TRIMMI project relies on national and international competence, development and innovation. The point is to establish long-term strategies and development measures which will enable Finland to become a globally leading and internationally attractive maritime industry hub.

"Our TRIMMI project was started in April 2014. Of course, at the time we already had a long prior history of similar types of technology promotion projects," says Ms. Mervi Pitkänen, Director for Machine Technology Center Turku Ltd.

"TRIMMI is scheduled to continue until the year 2016. We attempt to bring Finnish maritime companies closer to their potential international customers."

According to her, it has not been too difficult to recruit new participants for the project.

"The companies realise that this is a

great way to improve global visibility and to increase the volume of business."

TARGETING SPECIFIC FOREIGN MARKETS

In TRIMMI as well as in other current maritime technology projects, Machine Technology Center Turku Ltd. works in close operation with the Ministry of Employment and the Economy, and also with the City of Turku.

"Our aim is to promote the international growth, development and global positioning of local maritime companies," Pitkänen sums up.

In addition, emphasis is placed on ways to enhance R&D efficiency by employing new, innovative operational models and collaborative practices.

As an example of current actions, Mervi Pitkänen mentions the 'What's up?' forums. They are designed to help the internationalisation of Finland-based

maritime & machine technology companies and universities to invite cooperation for strategic initiatives aimed at increasing market shares and visibility in various but specific foreign markets.

For instance, in the summer of 2014, the first 'What's up Global?' update seminar for the maritime and offshore industries and infrastructure construction was held in Turku. With 85 companies and other operators in the maritime business participating, the discussion focused on the market situation and outlook in Brazil, Russia, Norway, Asia, and France.

"The seminar was jointly arranged by Machine Technology Center Turku Ltd, Finpro, and the Enterprise and Business Centre of Southwestern Finland. Later in the same year, the strategic discussions related to the same market areas plus Mexico and China were continued in two follow-up workshop events," Pitkänen recounts.

// Our aim is to promote
the international
growth, development and
global positioning of local
maritime companies.



*The maritime industry needs
enhanced cooperation and new
technologies.*

// The maritime
industry in
Finland currently
employs approximately
16 000 people.

"In the TRIMMI project, we have recently chartered the Mexican and Brazilian maritime markets. Another recent event was the technology seminar in Stavanger in Norway, arranged jointly with Finpro, with 21 Finnish maritime companies participating."

Overall, the maritime industry in Finland currently employs approximately 16 000 people and has a total annual turnover of some 5.7 billion euros.

COMBINING ICT AND MARITIME INNOVATIONS

The aim of another Finnish maritime promotion project MERIT Turku is to find ways to strategically incorporate and utilise ICT-related solutions in the maritime cluster, plus to promote the role of maritime industry as a forerunner in the utilisation of modern technologies.

Manager Juha Valtanen from Machine Technology Center Turku Ltd. notes that MERIT Turku is a sister project for the larger Helsinki-based MERIT initiative.

"Both of these projects were started in the autumn of 2014. For MERIT Turku, the main financing was supplied by the Ministry of Employment and the Economy and the City of Turku," Valtanen explains.

"Other initiatives for combining maritime and ICT solutions for the export markets have been ongoing since 2008, with a particular emphasis on the building and design of cruise ships." ICT technologies would be helpful in various maritime mobile communications and positioning applications, as well as in improving the ease of operation, safety and environment-friendliness of a number of technical devices in the maritime environment.

"This starting point has already become a reality, pointing the way to the Smart Ship project and various other tangible projects with R&D emphasis," mentions Valtanen.

"In MERIT Turku project, three new maritime ICT innovation events have already been scheduled to take place between the autumn of 2015 and the spring of 2016."

One of the main themes will be 'Augmented Reality', aiming for the improved illustration of maritime design schemes with the aid of new ICT applications. ■

photo: PORT OF HELSINKI LTD





BUSINESS RESIDENTIAL SERVICES

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



Protacon upgrades icebreaker propulsion drives

by: SAMI J. ANTEROINEN

Protacon, a company based in Jyväskylä, Finland, has received a major order for the modernisation of electric and automation systems of two icebreakers. Protacon is charged with the modernisation of electric propulsion drives and drive control systems for the Swedish icebreakers, Atle and Frej.

The customer is the Swedish Maritime Administration. With the deal, Protacon will considerably strengthen its foothold as a full-service supplier of high power electric drives.

Protacon has been making great advances in the marine business of late. In 2012, Protacon made a modernisation delivery for icebreaker Urho (Arctia Icebreaking). Project Manager Marko Loisa comments that the undertaking provided a great opportunity to demonstrate the company's knowledge in full-scope deliveries and as a supplier of marine sector automation and drives system. The operation was a success and was followed by an order to modernise icebreaker Ymer in 2013.

"After that, we've done one modernisation per year," says Loisa, adding that the key issue here – in addition to quality – is keeping with the schedule.

"Whatever we promise, we can keep," Loisa lays down the game plan.

UP FOR THE CHALLENGE

According to Loisa, it is also a huge marketing advantage for the company that it has solutions available and can spearhead large, turn-key projects, also globally.

"Thanks to our large system supplier networks, we can offer





cost-effective solutions from small automation systems to large electric drives using well-known brands,” says Loisa.

In marine automation business, it is not easy to stand out from the mass because of the number of suppliers in Europe and worldwide. Protacon, however, has its own marine automation product that is based on Siemens technology.

“Latest delivery to an icebreaker last year was a full scope automation system including machine alarm and automation functions as well as power management and propulsion drives control functions,” Loisa says, adding that the delivery was a good example of today’s automation system.

“That we can supply not just the automation, but also the large electric systems and drives, gives us the market advantage over competitors.”

“All the required functions can be integrated into the same automation system,” Loisa explains.

“System networking allows almost unlimited expandability for future functions. Basically, the customer can start with small automation functionality and continue onwards to full system.”

GLOBAL REACH

2015 marks the third year in a row that 100 % of Protacon’s marine turnover comes from global projects. Loisa says that the focus will be in global deliveries also in the years to come, but domestic markets will not be forgotten, either.

Protacon’s prowess in marine is driven by the great number of hours that are used for product development. Loisa comments that presently the company has great products not only for marine retrofits but also for newbuilds, ranging from automation products to voltage regulators and propulsion drives systems. One example of new innovation is the variable speed generator application for icebreakers:

“The first test – which was held last winter – indicates significant fuel savings when operating through ice where there’s no need for full propulsion power. Application can optimise generator speed and increase speed rapidly when needed, without any side effects to operating,” Loisa reveals. ■

More information: www.protacon.com

Wenda products for shipboard safety and style



Wenda Ltd. specialises in composite technology. The Company designs and manufactures lightweight structures for ships according to customer specifications. "When the goal is to make a structure that is durable and strong but also lightweight, the solution is composites. On ships, light weight and corrosion resistance are crucial, and that makes composites the right choice for a wide variety of applications", says the Company CEO Jan Forsbom.

The latest additions to Wenda shipboard products include a new type of deck seat, a new deck light fixture, a brand new life jacket container product line and IceStop ice prevention system.

A RELIABLE LIFE JACKET CONTAINER PRODUCT LINE

Wenda is proud to present a new life jacket container product line with an abundant selection of life jacket containers in different sizes and shapes. The containers can be installed on ceilings or as benches, boxes or cabinets, and all the models have an opening mechanism that is reliable as well as fast and easy to operate.

AN ELEGANT DECK SEAT

Wenda has developed a new elegant deck seat with several installation options to choose from. The seats can be installed separately or in groups, and the installation is very fast and easy. Several colors available.

A HIGH QUALITY DECK LIGHT FIXTURE

The Wenda reliable deck light fixture is easy to install and use. All the materials are corrosion-proof and the product is available in several colors.

ICESTOP ICE PREVENTION SYSTEM

An unique solution is designed to keep decks unfrozen on artic ships. IceStop is unbeaten in ease of installation and maintenance. ■

More information:

sales@wenda.fi, www.wenda.fi, www.icestop.fi

Clear savings with Kemppi FastMig X welder and WiseRoot+ special process root welding without backing

Kemppi's FastMig X product series offers superior welding quality for demanding industrial applications. It features three alternative high-end sample setups for different purposes: FastMig X Regular for MIG/MAG pulse welding, FastMig X Pipe for pipe and root welding and FastMig X Intelligent for diversified welding applications, for all metals and processes.



The final setup of FastMig X is always configured to meet user's needs, what ever they are: materials from mild steel to special alloys, from thin sheets to thick plates, conditions from hot to cold, working environments from workshops to shipyards.

WISEROOT+ – THE ULTIMATE MIG/MAG PROCESS FOR ROOT WELDING WITHOUT BACKING

FastMig X Pipe is specially designed for pipe welding. It is also suitable for plates and fast root welding from one side. It pro-

duces excellent weld quality, especially when running open gap root passes on pipes or plates without using backing support. WiseRoot+ is up to five times faster than TIG in root welding. One can weld over 80 % per day and save 50 % in labor and filler costs with WiseRoot+, like proved in the attached calculation. ■

More information:

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Energy-saving compact elevators installed onboard 'Mein Schiff 4'

by: MERJA KIHIL AND ARI MONONEN

photos: KARI PALSILA

Kone Elevators provided the elevators and escalators for 'Mein Schiff 4,' the new cruise ship that was delivered to TUI Cruises from Turku Shipyard on 8 May, 2015.

Mr. Jarkko Pekkala, Head of Marine Sales in Kone, notes that the installations are good examples of energy-efficient technology utilising energy recovery systems.

"All of the elevators are Kone MiniSpace units equipped with very compact machine rooms. This type of elevator is quite suitable for shipboard installation as it takes up less space than standard elevators, allowing more room for cabins or corridors."

"MiniSpace is a traditional solution for cruise ships. Similar types of elevators were installed onboard the earlier sister ship 'Mein Schiff 3' that was delivered in the spring of 2014," says Pekkala.

Overall, Kone Elevators' delivery for 'Mein Schiff 4' included 10 elevators for passengers and eight elevators for service, plus two escalators and two platforms for the use of passengers with impaired mobility.

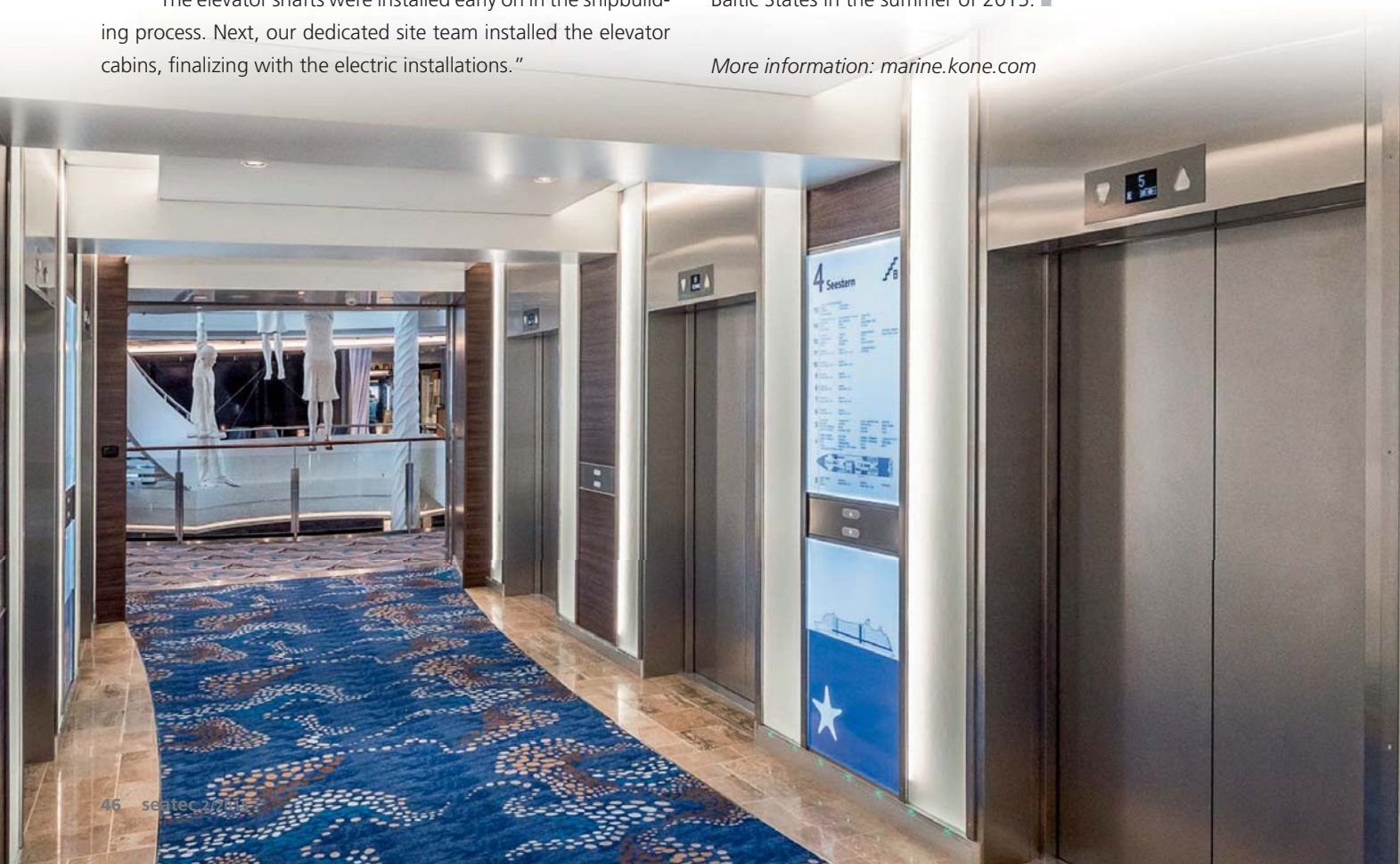
"The elevator shafts were installed early on in the shipbuilding process. Next, our dedicated site team installed the elevator cabins, finalizing with the electric installations."



"The next TUI Cruises ship 'Mein Schiff 5' is already under construction and will also be equipped with Kone elevators", Mr. Pekkala recounts.

For her maiden voyage, the 'Mein Schiff 4' will sail to the Baltic States in the summer of 2015. ■

More information: marine.kone.com



company directory

photo: MEYER WERTT



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Facts & Figures

Turnover: EUR 7,1 million
Personnel: 12
Established: 1987

Specialty Areas

Steel and Aluminium structures
Shipbuilding – Shiprepairing – Conversions – Outfitting. Large capacity

ACM-TRADING LTD

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www.acm-trading.fi

**Contact Person**

Kari U. Laiho

Specialty Areas

Complete PUSHPIN®-ATB-Coupler System for Pusher Tug and Barge combinations. Available models 2 or 3 pin executions, with electro-pneumatic or electro-hydraulic controls with modern PLC controls. New Model! PUSHPIN®-SliderRig – Coupler enabling to be engaged during loading and discharging. Pin forces from 150 Tons up to 3 000 Tons, from River ATBs to Large Offshore ATBs, 15 systems in service. Concept design, Feasibility Studies and total installation engineering and supervision including class approvals with FEM-analysis. Electro-Hydraulic EHS Actuators for valve control and remote sounding systems with total BUSLoop systems for all kind of vessels. Cooling control systems for HT-, LT-, LO-, SW- etc. cooling circuits. Marine Pumps, Marine Butterfly valves in house already over 40 years experience.

AKER ARCTIC TECHNOLOGY INC

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Aker Arctic

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Facts & Figures

Turnover: EUR 10 million
Established: 2005

Specialty Areas

Aker Arctic Technology Inc (Aker Arctic) is an independent company specialising in the development, design, engineering and testing services for the ice going vessels, icebreakers and offshore marine structures and ports. Our head office is located in Helsinki, Vuosaari Maritime Business park area. The past references include 60 per cent of all the world's icebreakers, many Arctic or Antarctic research vessels and quite a number of different types of cargo vessels and concepts of offshore structures.

ANTTI-TEOLLISUUS OY, ANTTI MARINE

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Subsidiaries & Representatives

Germany, Benipo Oy

Specialty Areas

Cabin, Accommodation & Interior fire doors for marine and off-shore applications. Antti doors are available in C, B-15 and B-30 class with MED & USCG approvals.

ARCTIA SHIPPING LTD

Laivastokatu 9
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**Contact Person**

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Facts & Figures

Turnover: EUR 63 million
Personnel: 260
Established: 2010

Specialty Areas

Arctia Shipping carries over 100 years of working expertise in winter navigation. We offer ice-management, icebreaking and offshore services. Our icebreakers have oil spill response equipment and well trained staff. Our fleet consists of four Baltic icebreakers, three Arctic multipurpose icebreakers and a harbor icebreaker. We will have the world's first LNG powered icebreaker in 2016.

ASLEMETALS OY

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Specialty Areas

Aslemetals can carry out turnkey deliveries from planning to installation. Shipbuilding (length till 84m), pipemodules, machine rooms, steel constructions etc. Careful planning, preparations and our experienced personnel enable efficient deliveries.

AUTROSAFE OY

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Facts & Figures

Turnover: EUR 2,3 million
Personnel: 9
Established: 1995
Parent Company: Copertura Oy

Specialty Areas

Temperature sensors, pressure transducers
Fire alarm and Engine alarm systems
Wikrolux Led-technic based safety and guiding lights
Electrical sounders and flash alarms
Autosafe Light Signal Columns

**BUREAU VERITAS**

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www.bureauveritas.com

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Facts & Figures

Personnel: 65
Established: 1984 (Finland)
Parent Company: Bureau Veritas SA (est. 1828)

Specialty Areas

Survey of ships & ship equipment, classification of newbuildings
Inspection of industrial products & goods for international trade
Certification of management systems against international standards

**CAVERION INDUSTRIA OY, MARINE INDUSTRY**

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Facts & Figures

Turnover: EUR 250 million approx.
Personnel: approx. 2 400
Established: 2013
Parent Company: Caverion Oyj

Specialty Areas

Marine Industry unit:
Electrical and mechanical outfitting projects
Turnkey deliveries for technical areas
Prefabricated pipes, pipe-packages and process modules

CHAMPION DOOR

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Facts & Figures

Turnover: EUR 9,5 million
Personnel: 48
Established: 1992

Specialty Areas

Very large shipyard fold-up doors, size of one door can be as large as 40 x 35 metres. Doors can be also manufactured in special frame widths with no wind or size limitations.

ENSTO ITALIA

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Facts & Figures

Turnover: EUR 260 million
Personnel: 1 600
Established: 1958
Parent Company: Ensto Group

Specialty Areas

Ensto's marine lighting products are designed for ship installations and can be customised to Customer's needs.



Saves Your Energy

EVAC OY

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www.evac.com

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Facts & Figures

Turnover: EUR 65,5 million

Specialty Areas

Evac is a global company that designs, manufactures and markets environmentally friendly water, waste and wastewater collection and treatment systems for the shipbuilding, offshore and construction industries. Skilled personnel, professional design and high-quality technical solutions have facilitated continuous growth, both in turnover and market share.



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Timo Hakala

Specialty Areas

EXIT 6000 series emergency doors
EXIT panic device

HALTON MARINE OY

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www.haltonmarine.com

Contact Person

Tommi Rantanen

Facts & Figures

Turnover: EUR 189 million (Halton)
Personnel: 1 350
Established: 1969
Parent Company: Halton

Specialty Areas

High-quality ventilation systems specifically designed for demanding marine, navy and oil & gas markets.
Main product groups: Cabin Ventilation, Galley Ventilation, Fire dampers, Air intake products, Airflow Management and Air Distribution products.

ILS LTD

Puutarhakatu 45
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ils@ils.fi
www.ils.fi

**Contact Person**

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Managing Director

Specialty Areas

Design of icebreakers and ice-going ships

JTK POWER OY

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www.jtk-power.fi
www.jtk-power.cn

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Facts & Figures

Turnover: EUR 20 million
Personnel: 82
Established: 1998

Specialty Areas

Large Diesel and Gas engines exhaust and intake silencers. Offshore-, paper- & pulp and other process industries large silencers. Also Valve seat inserts are manufactured for exhaust and intake valves, of both large and small diesel engines.

KAEFER OY

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Facts & Figures

Turnover: EUR 25 million
Personnel: 75
Established: 1977
Parent Company: KAEFER GmbH

Subsidiaries & Representatives

KAEFER GmbH

Specialty Areas

Interior outfitting in passenger vessels
Turnkey solutions in galleys, pantries, catering areas
All type of insulation solutions in marine industry

KEMPPI OY

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export@kemppi.com
www.kemppi.com

Facts & Figures

Turnover: EUR 111 million (2013)
Personnel: 640
Established: 1949

Subsidiaries & Representatives

Sales offices: Kemppi Sverige AB, Sweden; Kemppi Norge AS, Norway; Kemppi Danmark AS, Denmark; Kemppi GmbH, Germany; Kemppi (UK) Ltd., United Kingdom; Kemppi France S.A., France; Kemppi Benelux B.V., Holland; Kemppi Welding Machines Australia Pty Ltd., Australia; Kemppi Spolka z.o.o., Poland; OOO Kemppi, Russia; Kemppi Trading (Beijing) Company Ltd, China; Kemppi India Private Limited, India; Kemppi Welding Solutions Sdn Bhd, Malaysia.
Distributors in more than 70 countries.

Specialty Areas

Kemppi is a world-leading manufacturer of arc welding equipment and a provider of solutions for highly productive welding.

3 4

KESKIPAKOVALU OY

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Keijo Koivisto
Asmo Rantanen

Facts & Figures

Turnover: EUR 5,5 million
Personnel: 32
Established: 1956

Specialty Areas

Bronze parts of diesel engines
Bronze parts of propulsion machinery
Bronze parts of maneuvering machinery

2 6 7

KOJA MARINE

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Facts & Figures

Turnover: EUR 60 million
Personnel: 232
Established: 1935
Parent Company: Koja Group

Specialty Areas

Air conditioning systems, air conditioning units
System design and material delivers
Cargo ventilation systems
Air Conditioning turn-key deliveries, HVAC electrical / automation systems

1 2 6

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KONE ELEVATORS LTD

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Facts & Figures

Turnover: 7 300 milj. EUR (corporation)
Personnel: approx. 47 000 (corporation)
Established: 1910
Parent Company: KONE Oyj

Specialty Areas

KONE is a global leader in the elevator and escalator industry. KONE has a dedicated unit which provides innovative and eco-efficient solutions for maritime environments. Our expertise and know-how supports customers in every step of a vessel life cycle: starting with the design, manufacturing and installation to maintenance and modernisation.

2 3 7

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Jukka Runola, Sales Director, jukka.runola@konepajahakkinen.fi

Facts & Figures

Turnover: EUR 46 million
Personnel: 360
Established: 1980
Parent Company: Konepaja Häkkinen Oy

Subsidiaries & Representatives

Tikkakosken Konepaja Oy and Rautpohjan Konepaja Oy

Specialty Areas

The most valued long term partner in supply of demanding machined casting, forging and welded steel components for a energy, inshore, offshore, subsea, maritime, mining, pulp and paper industries. Focus area medium and large size demanding components as well as small and medium batch products manufacturing's before mentioned industrial sectors.

3 9

LAIVAKONE OY

Uranuksenkuja 1 C
FI-01480 Vantaa
Finland

Posenerstr. 1 a
D-23554 Lübeck
Germany

Phone +358 20 763 1570
Fax +358 20 763 1571
laivakone@laivakone.fi

Contact Person

Harri Elonen

Facts & Figures

Personnel: 20
Established: 1969

Specialty Areas

Ship engine repairs and services
In-Situ machining

1 2 9

OY LINDAB AB

Juvan teollisuuskatu 3
FI-02920 Espoo, Finland
Phone +358 20 785 1010
www.lindab.fi

Contact Person

Piia Kyrölahti, +358 20 785 1010

Facts & Figures

Turnover: SEK 6 656 million (2012)
Personnel: 4 300
Established: 1959
Parent Company: Lindab Group

Specialty Areas

Insulated and non-insulated duct and fittings
Acoustic solutions
Bulkhead penetrations
Dampers and measuring units
Air terminals
Fans
Lindab develop the most innovative and simplified constructions on the market. Our energy efficient solutions will change the way of designing ships and bring the best indoor climate onboard.

1. Consulting
2. Equipment
3. Machinery

4. Materials
5. Safety
6. Systems

7. Turnkey Deliveries
8. Yards
9. Other

1

LLOYD'S REGISTER EMEA

Aleksanterinkatu 48 A
FI-00100 Helsinki
Finland
Phone +358 20 791 8300
helsinki@lr.org
www.lr.org

**Contact Persons**

Päivi Björkestam
Field Operation Manager
Niklas Rönnberg
Marine Client Manager

Facts & Figures

Personnel: 30
Established: 1957 (Finland)
Parent Company: Lloyd's Register Group Limited

Specialty Areas

Ship and offshore: newbuilding & periodical surveys
Industrial inspections and certification
Consultancy

2 3 6 7

MARINE DIESEL FINLAND OY

Eteläkaari 10
FI-22420 Lieto
Finland
Phone +358 20 510 6900
Fax +358 2 253 9121
marine.diesel@wihuri.fi

**Contact Persons**

Markus Hjerpe
Mika Aaltonen

Facts & Figures

Personnel: 40
Established: 1992

Specialty Areas

Main- and auxiliary engine repair and service
Total overhaul of all type of engines
Mechanical engineering
On-site machining
Conservation works after engine room fire or flooding
Well equipped workshop in Lieto
CAT dealer, Kemel seals and bearings, Ingersoll Rand service

2

METOS OY AB

Ahjonkaarre
FI-04220 Kerava
Finland
Phone +358 20 439 13
Fax +358 20 439 4432
metos.marine@metos.com
www.metos.com

**Contact Person**

Taina Salonen
Director, Marine Sales
taina.salonen@metos.com

Facts & Figures

Personnel: 700
Established: 1922
Parent Company: Ali Group

Specialty Areas

Galley equipment
Laundry equipment

1 8

See page 3

MEYER TURKU OY

P.O. Box 666
(Telakkakatu 1)
FI-20101 Turku
Finland
Phone +358 10 6700
info@meyerturku.fi
www.meyerturku.fi

**Contact Person**

Tanja Sabell
Manager
Communications
tanja.sabell@meyerturku.fi

Specialty Areas

Meyer Turku employs 1 350 persons and specialises in building highly complex, innovative and environmentally friendly cruise ships, car-passenger ferries and special vessels. The design and construction of the ships are supported by the subsidiaries of Meyer Turku: Piikkio Works Oy, which is a Cabin Factory in Piikkiö, Shipbuilding Completion Oy, which provides turnkey solutions to public spaces in ships, and ENG'nd Oy, which is an engineering company offering services for shipbuilding and offshore.

1 4 7

NIT NAVAL INTERIOR TEAM

Hadvalantie 10
FI-21500 Piikkiö
Finland
Phone +358 40 779 8211
info@nit.fi
sales@nit.fi
www.nit.fi

**Contact Person**

Jari Suominen
jari.suominen@nit.fi

Facts & Figures

Turnover: EUR 15 million
Personnel: 55
Established: 2000

Specialty Areas

Total turnkey solutions in maritime construction projects, from design to installation – without compromising quality or highly specified requirements. Our business focus is on passenger ships, especially interiors, insulation, electricals, piping and HVAC.

3

OILON OY

P.O. Box 5
FI-15801 Lahti
Finland
Phone +358 3 857 61
Fax +358 3 857 6239
www.oilon.com

**Contact Person**

Jani Kurikka
jani.kurikka@oilon.com

Facts & Figures

Turnover: EUR 70 million
Personnel: 360
Established: 1961

Specialty Areas

Oil & gas burners for marine applications

1. Consulting
2. Equipment
3. Machinery

4. Materials
5. Safety
6. Systems

7. Turnkey Deliveries
8. Yards
9. Other

3

PARKER HANNIFIN MANUFACTURING FINLAND OY

Salmentie 260
FI-31700 Urjala As.
Finland
Phone +358 20 753 2500
Fax +358 20 753 2501
filtration.finland@parker.com
www.parker.com

**Contact Person**

Tarmo Mäkelä
tarmo.makela@parker.com

Facts & Figures

Personnel: 135
Established: 1964
Parent Company: Parker Hannifin

Specialty Areas

Filtration: Lubrication oil filtration, fuel oil filtration,
hydraulic filtration, gas filtration
Condition Monitoring

2

3

PATRIA AVIATION ENGINE BUSINESS UNIT

Linnavuorentie 2
FI-37240 Linnavuori, Finland
Phone +358 40 869 2800
Fax +358 20 469 2801
www.patria.fi

**Contact Person**

Seppo Tamminen
General Manager
Diesel Engine Business
seppo.tamminen@patria.fi

Facts & Figures

Turnover: EUR 20 million
Personnel: 165
Established: 1947
Parent Company: Patria Oyj

Specialty Areas

Maintenance and overhaul of high speed diesel engines and related equipment up to 6 000 Kw
Authorised MTU Service dealer
Maintenance and overhaul of industrial and marine gas turbines
Special repairs of parts for diesel engines and gas turbines

2

9

POCADEL OY

Korpelantie 229
FI-21570 Sauvo
Finland
Phone +358 2 477 2950
Fax +358 2 477 2971
pocadel@pocadel.fi
www.pocadel.fi

**Contact Person**

Markku Riekkä
markku.riekki@pocadel.fi

Facts & Figures

Established: 1997

Specialty Areas

Fire rated B15 – A60 glass doors and partitions for marine and offshore use:
Hinged Doors – Sliding doors – Super Wide Tandem Doors – Butt Joint Walls

2

7

PORKKA FINLAND OY

P.O. Box 127
FI-33101 Tampere
Finland
Phone +358 20 555 512
Fax +358 20 555 5288
www.porkka.fi

Contact Person

Petri Hiilloste
porkkapanel@huurre.com

Facts & Figures

Turnover: EUR 26 million
Personnel: 170
Established: 1962
Parent Company: Huurre Group Oy

Specialty Areas

Provision stores
Walk-in rooms in galleys/pantries
Insulated doors
Insulated fire doors A60, for cold stores

3

6

7

PROJEKTIA OY

Tuulissuontie 21
FI-21420 Lieto
Finland
Phone +358 2 477 9200
Fax +358 2 477 9210
projektia@projektia.fi
www.projektia.fi

**Contact Person**

Paavo Mikkola
paavo.mikkola@projektia.fi

Specialty Areas

Turnkey deliveries of provision refrigeration; machinery and coolers
Pipe installations and automation
Cooling machinery for technical spaces and air condition
Water chillers
Unic service concept developed especially for fast moving transport

1

2

6

7

See page 31 and 42

PROTACON LTD

Seenintie 2, FI-40320 Jyväskylä, Finland
Phone +358 10 347 2600
Fax +358 10 347 2601
sales@protacon.com
www.protacon.com

**Contact Person**

Kari Pellinen, CEO, kari.pellinen@protacon.com

Facts & Figures

Turnover: EUR 9,2 million
Personnel: 92
Established: 1990
Parent Company: Protacon Group

Subsidiaries & Representatives

Protacon Jiangyin, China

Specialty Areas

Machine alarm system
Automation systems
Switchboards
Protection and power management systems
Voltage regulators for generators (AVR)
AC / DC drives and motors
Propulsion control systems

1. Consulting
2. Equipment
3. Machinery

4. Materials
5. Safety
6. Systems

7. Turnkey Deliveries
8. Yards
9. Other

RAUMA INTERIOR OY

Hallitie 8
FI-26510 Rauma
Finland
Phone +358 2 8387 8200
info@raumainterior.fi
www.raumainterior.fi
www.messin.fi

**Contact Person**

Kari Wendelin
Managing Director
kari.wendelin@raumainterior.fi

Specialty Areas

Designed fixed and free-standing Furniture in various Materials especially for Passenger & Crew Cabins, but also for Restaurants, Nightclubs, Coffee Shops, Conference Rooms (Wardrobes & Racks, Dressing Tables, Cabinets, Coffee Tables, Desks, TV-stands, Beds in Wood and Metal, Nightstands, Sofas, Resin Coated Dining Tables, Bardesks, Decorative Columns etc.)

RENOTECH OY

Sampsankatu 4 B
FI-20520 Turku, Finland
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Fax +358 2 254 3745
rt@renotech.fi
www.renotech.fi

**Contact Person**

Bob Talling, +358 50 558 1806, bt@renotech.fi

Facts & Figures

Turnover: EUR 1 million
Personnel: 5
Established: 1994

Specialty Areas

MED Certified products, B + D. GRG decorative wall and ceiling elements, mouldings and sculpture work. DGG light-weight gypsum board. Renopur decorative surface finishes, paint effects, marbling, wood graining, gilding, paintings and art work. Stonemix textured mouldings and finishes. Renofix non-combustible glues. Fireshield acoustic and fire proofing. Renolmage silk printing and 3-D release films. Acoustic flooring and floor screeds. B-15 elements and draught stop.

REXEL FINLAND OY

P.O. Box 360
FI-05801 Hyvinkää, Finland
Phone +358 10 509 311
Fax +358 10 509 3222
marine.sales(at)rexel.fi
www.rexel.fi

**Contact Person**

Karri Westermark
Area Manager, Marine
Industrial Services
karri.westermark(at)rexel.fi

Facts & Figures

Turnover: EUR 212 million (2012)
Personnel: 300 (2012)
Established: 1913
Parent Company: Rexel Group

Specialty Areas

Electrical wholesaling; Electrical items such as electrical installation materials, cables, cable racks, cable penetrations and seals. Also deliveries of all electrical items for marine business.

ROLLS-ROYCE OY AB

Rolls-Royce

P.O. Box 220
FI-26101 Rauma
Finland
Phone +358 2 837 91
Fax +358 2 8379 4804
rolls-royce.finland@rolls-royce.com
www.rolls-royce.com/marine

Contact Person

Liisa Snellman
Communications
liisa.snellman@rolls-royce.com

Facts & Figures

Turnover: EUR 614 million
Established: 1988
Parent Company: Rolls-Royce plc

Subsidiaries & Representatives

Rolls-Royce worldwide sales and service network

Specialty Areas

Thrusters, propulsion systems, winch systems, stabilizers, steering gears, bearings

S.A. SVENDSEN OY

Särkiniementie 3 B
FI-00210 Helsinki
Finland
Phone +358 9 681 1170
Fax +358 9 681 1768
www.sasvendsen.com

**Contact Person**

Kimmo Räisänen
Managing Director
kimmo.raisanen@sasvendsen.com

Facts & Figures

Turnover: EUR 9,7 million
Personnel: 5
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

SBA INTERIOR LTD

Hällsnäsintie 99
FI-10360 Mustio, Finland
Phone +358 19 327 71
sales@sba.fi
www.sba.fi

Contact Persons

Thomas Pökelmann, Sales Manager
thomas.pokelmann@sba.fi
Johan Fagerlund, Technical Director
johan.fagerlund@sba.fi

Facts & Figures

Turnover: EUR 12 million
Personnel: 70
Established: 1985

Specialty Areas

SBA Interior is specialised in accommodation panelling and different types of beds for marine applications. Latest development is an only 16mm B-0 class and a 50 mm A-60 class light weight non-bearing bulkhead panel as well as a 20mm B-15 class Extension Screen. Another branch of SBA is subcontracting for metal industry.

SELKA-LINE OY

Harjuviidantie 3
FI-15550 Nastola
Finland
Phone +358 3 882 610
Fax +358 3 882 6110
www.selka.fi

Contact Person

Ritva Heikkinen
Business Development Manager
ritva.heikkinen@selka.fi

Facts & Figures

Turnover: EUR 6 million
Personnel: 48
Established: 1985

Specialty Areas

Selka-line Oy manufactures high quality furniture for ships and contract use. We produce custom made furniture in various materials and we can offer wide range of standard products for restaurants, nightclubs, cafeterias, conference rooms and lounges as well for cruise ships as ferries.

OY SIKA FINLAND AB**BUILDING TRUST**

P.O. Box 49
FI-02921 Espoo
Finland
Phone +358 9 511 431
Fax +358 9 5114 3300
sika.finland@fi.sika.com
www.sika.com

Contact Person

Kai Winqvist
Industry Manager
winqvist.kai@fi.sika.com

Facts & Figures

Turnover: EUR 31,4 million
Personnel: 44
Established: 1985
Parent Company: Sika AG

Specialty Areas

Sealing – Bonding – Acoustic Damping – Reinforcing – Protecting

STEERPROP LTD

P.O. Box 217
FI-26101 Rauma
Finland
Phone +358 2 8387 7900
Fax +358 2 8387 7910
steerprop@steerprop.com
www.steerprop.com

Specialty Areas

Azimuth Propulsors for demanding applications. Steerprop Ltd. combines the reliability of proven technologies with the efficiency of modern design to produce azimuth propulsors of exceptional quality and excellent reliability. Steerprop Azimuth Propulsors can be made up to 20 MW in power or even in the most stringent ice-classes.

TEBUL OY

Luumäentie 2
FI-21420 Lieto
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Phone +358 50 540 6031
Fax +358 2 489 9299
sales@tebul.fi
www.tebul.fi

Contact Person

Jussi Uusitalo
Managing Director
sales@tebul.fi

Specialty Areas

TEBUL OY has been designing and manufacturing watertight bulkhead sliding doors since 1961. Our self-tightening 24VDC fully electric watertight bulkhead sliding door is a fourth-generation product. The primary self-tightening is based on metal to metal contact with rubber seals for initial tightening. The higher the pressure, the larger the force exerted on the door. Tebul doors are approved to be installed into A-60 bulkheads. Tebul doors are available also in the Eex-version, for Explosion Hazardous areas.

TEKNIKUM OY

FI-38310 Sastamala
Finland
Phone +358 3 513 5311
www.teknikum.com

Contact Person

Mikko Esko
mikko.esko@teknikum.com

Facts & Figures

Turnover: EUR 46,7 million
Personnel: 295
Established: 1989
Parent Company: Teknikum Group Ltd.

Specialty Areas

Rubber lining for steel pipes against seawater corrosion. Rubber hoses, bellows and connection hoses for shipbuilding and offshore industry. Moreover we offer customised rubber products for different industry sectors.

UUDENKAUPUNGIN TYÖVENE OY

Telakkatie 8
FI-23500 Uusikaupunki
Finland
Phone +358 2 846 4600
Fax +358 2 841 4347
tyovene@tyovene.com
www.tyovene.com

Contact Person

Jouko Honkala

Facts & Figures

Turnover: EUR 30 million approx.
Personnel: 80
Established: 1987

Specialty Areas

Building of aluminium workboats, such as Pilot Cutters, Oil Combat Vessels, Service Ships for Channels
Building of small steel vessels, such as Road Ferries, Offshore Patrol Vessels, Passenger Vessels for commuter traffic

OY VALLILA CONTRACT AB

Nilsjankatu 15
FI-00510 Helsinki
Finland
Phone +358 20 776 7700
Fax +358 20 776 7701
projekti@vallilainterior.fi
www.vallilainterior.fi



Vallila Interior

Contact Person

Miku Berner
miku.berner@vallilainterior.fi

Facts & Figures

Turnover: EUR 37 million
Personnel: 135
Established: 1935

Specialty Areas

Textile design
Textile full turnkey solutions, measuring, sewing, installation
All system solutions, electrical and manual
Large collections on Imo certified fabrics

WENDA OY

Tuulissuonkuja 1
FI-21420 Lieto
Finland
Phone +358 2 487 0258
sales@wenda.fi
www.wenda.fi
www.icestop.fi

**Contact Person**

Jan Forsbom
Managing Director
jan.forsbom@wenda.fi

Facts & Figures

Established: 1995

Specialty Areas

Wenda Ltd. specialises in composite technology. The Company designs and manufactures lightweight structures and products for ships according to customer specifications. The latest additions to Wenda shipboard products include a new type of deck seat, a new deck light fixture, a brand new life jacket container product line and IceStop ice prevention system. IceStop is a unique system to keep decks unfrozen on arctic ships.

NOTES



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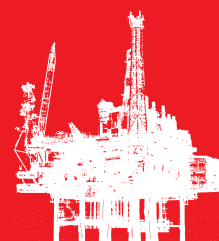
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