Yacht solutions by Wärtsilä

- Integrated solutions
- Extensive product range
- Lifecycle reliability and efficiency
- Leading technologies
Super intelligent yachts

Wärtsilä provides yacht solutions that achieve outstanding levels of efficiency, safety, reliability and environmental compliance. At the same time, owner comfort and the special requirements of each and every customer are always at the top of our agenda when preparing a customised proposal. By connecting all the individual dots, we provide Super Yacht Intelligence.

Your most valued business partner. By working closely with our customers and listening carefully to their needs, Wärtsilä strives to be the most valued business partner. We can provide “one-stop-shopping” service through our unrivalled portfolio. Our scope of delivery includes power and propulsion systems, waterjets, navigation, automation and dynamic positioning technology, safety and security, entertainment systems, special lighting, audio visual and sound outfits, cable networks and complete installations as well as a range of environmental solutions.

Wärtsilä delivers customised solutions for smaller sport fishing and sailing yachts, as well as for some of the world’s largest and most complex luxury vessels. We are one of the leading suppliers worldwide, especially in the Mega yacht segment of up to more than 120 meters. The unique demands of our projects keep us at the cutting edge of yacht systems technology.

Systems integration. Under the motto “from bridge to propeller” we provide full integration of all onboard solutions, typically in close partnership with the shipyard and owner. The level of systems integration varies from a package delivery of products, including product related engineering, up to complete systems integration. By having these capabilities and competences, we can ease your way to efficiency and lower costs throughout the entire project, from planning to construction.

The benefits of Wärtsilä’s single-source supply

Wärtsilä’s unique position as a single-source provider of products, systems and solutions for yachts comes with a host of benefits, including:

- A single point of contact and single responsibility
- Reduced risk of incompatibilities and interface miss-matches
- Time savings in design and engineering
- Simpler procurement procedures reduce timing and supply risks
- Fewer project participants enable faster decision making and less likelihood of coordination problems
- Co-engineering with the shipyard’s design department
- On-site support during installation and commissioning.
Propulsion machinery. The central feature of Wärtsilä’s comprehensive portfolio of world-class main and auxiliary engines, gears, propellers, seals, bearings, stern tubes and waterjets is efficiency. By integrating these individual products into a single, fully optimised propulsion system, we can reduce operating costs significantly.

Lower maintenance costs. Unplanned downtime and maintenance based on pre-set schedules rather than actual need create high and often unnecessary costs. Wärtsilä helps to lower maintenance costs through its broad scope of monitoring, analysis, and condition-based service systems. By knowing the actual condition of the machinery, and through accurately predicting where and when overhauls will be required, the timing of maintenance can be optimised to keep downtime to an absolute minimum.

Leading design & engineering. Our sophisticated design and engineering capabilities provide optimised propulsion systems for maximum efficiency. For example, our propeller designs are based on the latest CFD technology to ensure the lowest possible fuel consumption, while minimising noise and vibration. Wärtsilä waterjets have been developed in line with the latest operating demands for luxury vessels. The aim, as with all Wärtsilä products and solutions, is to ensure optimal efficiency, excellent hydrodynamic performance, and less maintenance. With two alternative configurations, and size options ranging from 500 to 30,000 kW, Wärtsilä waterjets enable vessels to meet and exceed the performance levels required by the most demanding operational needs.

For high-speed yachts, or vessels with draught limitations, Wärtsilä can supply a propulsion package with waterjets. For power requirements of up to 4500 kW the midsize concept is ideally suitable. For greater power needs (up to 30 MW) the customisable modular concept is perfect. The combination of Wärtsilä waterjets and refined propellers can meet the most challenging operational requirements.

A unique portfolio

With a greater range of products and systems than any other company in this market, Wärtsilä can support the needs of both the yard and the owner. Excellent performance with the lowest possible noise and vibration is always a priority, while the Wärtsilä engines are known for their efficiency and low levels of exhaust emissions. Plus, we provide the expertise and experience throughout the project to ensure the utmost cruising comfort with the least need for maintenance concerns.
Environmentally sustainable

Yachts frequently visit harbours close to heavily populated areas, and sail in pristine or endangered waters that are protected by stringent environmental regulations. We ensure that our customers are compliant everywhere they need to be. Our priority is discharge reduction, and we can ensure the safe discharge of everything; from exhaust gases to oil, waste and ballast water.

Expert consultancy. No single means of achieving compliance with emission regulations suits everyone. This is why Wärtsilä not only works hard to provide a range of state-of-the-art technologies, but supports this with expert consultancy to ensure each operator has the solution that best meets his needs.

Reducing emissions to air. Wärtsilä offers a range of options for achieving SO₂ and NOₓ emission reductions. These include multi-fuel engines capable of operating on marine diesel, LNG, bio-fuels and even methanol. Wärtsilä has pioneered multi-fuel marine engine technology and is a leader in this field.

SCR technology. The Wärtsilä NOₓ Reducer utilises the company’s validated and reliable Selective Catalytic Reduction (SCR) technology for 4-stroke engines. Having delivered more than 1200 catalyst systems over the past 20 years, Wärtsilä has the experience and know-how to design the most advanced SCR solutions. All Wärtsilä systems meet the IMO Tier III requirements for NOₓ abatement.

Waste water treatment. Wärtsilä’s sewage treatment plants offer a cost-effective and safe means to avoid discharging waste water to the sea, thereby helping to preserve the quality of the world’s oceans. Our sewage treatment plants are certified to meet IMO MEPC 227(64) guidelines, and are optimised for the treatment of black and grey waste water flows.

Ballast water management systems. The Wärtsilä Aquarius® Ballast Water Management System range comprises two product series specifically developed to enable our customers to meet their global ballast water discharge regulatory obligations. Both technical solutions, one based on filter UV and the other on filter side stream electro-chlorination (EC), have achieved IMO type approval status and both have been AMS accepted by the USCG.

Seals and bearings. Our broad selection of advanced seals and bearings are economically sound solutions that are fully compliant with all present and anticipated environmental regulation standards. Our water lubricated shaft line portfolio covers the full scope of products including seals, bearings, stern tube and condition monitoring systems.

High voltage shore connection systems. Wärtsilä also now offers a series of modular high voltage shore connection systems (HVSC) to provide in-harbour electrical power without the use of auxiliary engines.
The latest in Electrical and Automation systems

Wärtsilä’s E&A systems offering to the marine industry is today unmatched. This comprehensive scope of system solutions is supported by deep in-house know-how and years of experience.

Integrated bridge control systems. The Wärtsilä NACOS Platinum arrangement uniquely combines the controls for navigation, automation, dynamic positioning, as well as power and propulsion, into a single integrated system. This allows the vessel to be navigated, controlled, and monitored from various onboard locations. The truly multi-functional operator stations enable unequalled flexibility and convenience. We offer the latest innovations in bridge technology, including 3D sonar, night vision, and tender tracking to fully meet your specific needs.

Electric propulsion system. Wärtsilä offers the most economical drive solution for your yacht’s propulsion power. Synchronous, asynchronous or induction motors fed by LCI or PWM frequency converter technology, can be installed to increase efficiency and lower the operational costs. The advantages also include low noise and reduced vibration, notably improved efficiency in partial propulsion power mode, plus high reliability, availability and redundancy, with fewer emissions and less wear and tear.

Hybrid energy storage systems. By combining different power sources with energy storage devices, significant efficiency improvements can be achieved, for example, by running the engines at optimal load and absorbing many of the load fluctuations using batteries. With the latest in inductive charging technology, Wärtsilä offers total plug-in solutions.

Power distribution. Wärtsilä’s low and medium voltage systems and UPS systems offer uninterrupted, reliable power distribution, as well as shore connection systems adapted to customer needs. The Wärtsilä GPMS50 integrated system has been developed to protect and control power supply systems. A power management function is also available. The protection system can be operated independently or in combination with other systems via data bus. Interfaces to automation and other control systems can be provided.

Safety & security. Wärtsilä has the expertise and experience to design and integrate comprehensive safety and security systems that meet increasingly stringent regulations. Wärtsilä also offers telephone and paging systems, smoke detection, general and fire alarm systems, as well as onboard safety monitoring.

Our fully integrated security systems are designed to ensure that your family, guests and crew feel protected at all times. We offer onboard intruder alerts, thermal imaging cameras, fast track radars, diver detection sonars, and remotely operated vehicles to ensure that the vessel and its underwater hull are safe and secure.

AV & IT systems. We integrate dedicated Audio and Video Systems with the IT network to maximise the experience of our clients. To merge complex technology seamlessly into the yacht is our job as a systems integrator.

Our systems are simple to operate, reliable, and provide easy enjoyment. The product scope also includes ship-wide systems, such as SAT TV reception and head end distribution. Our goal is always to exceed the expectations of our customers.
This is how we make dreams come true

We work hard to understand the needs of our yacht customers. We appreciate that the comfort and safety of crew and guests are priority considerations, and we know that reliable service and global availability is essential.

Our efforts in product development are all geared towards the needs for safety, reliability, comfort, and efficiency. The solutions that we provide range from ship design to engines and all power and propulsion equipment, to electrical & automation systems, to navigational controls, to environmental solutions, and new hybrid fuel systems.

We provide lifecycle support, all the way from initial design to daily operations, and our focus is constantly on fuel and operational efficiencies that lower operating and ownership costs.

All of this is backed by our more than 180 years of experience.

Global Support

Superyachts are floating personal 5-star resorts. Our technicians are specially trained to fulfill the demands of this environment. Round-the-clock attendance and service is available globally, organized through Wärtsilä’s worldwide network of service pools and maintenance facilities. This capability provides technical support at short notice, on-site or via remote connection.

Training

Navigational safety is made possible by reliable systems, professional maintenance and proficient users. The Wärtsilä Customer Training Centre in Hamburg provides a tailored training program for high-end yachts. The Training Centre is equipped with state-of-the-art technology, and is constantly being adapted to suit rules and regulations in order to provide the highest quality training. This includes courses in NACOS Platinum navigation equipment, NACOS Platinum main engine remote control, and NACOS Platinum ship automation in a simulated environment.
Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets. By emphasising technological innovation and total efficiency, Wärtsilä maximises the environmental and economic performance of the vessels and power plants of its customers.

yachts@wartsila.com
www.wartsila.com

WÄRTSILÄ® is a registered trademark. Copyright © 2016 Wärtsilä Corporation. Specifications are subject to change without prior notice.