



Yacht

OUTSTANDING PERFORMANCE.  
UNIQUE COMFORT.  
INSPIRING EXPERIENCES.



A Rolls-Royce  
solution



**mtu** solutions power  
**60%**  
OF THE TOP 10 LARGEST  
YACHTS WORLDWIDE



# CONTENTS

<b>01 Pioneering the power that matters</b> World-class power solutions and complete life-cycle support.	<b>04</b>	<b>09 Hybrid Solutions</b> Hybrid Systems for Yachts Discover the <b>mtu</b> Hybrid PropulsionPack.	<b>34</b>
<b>02 Powering the World of Yachts</b> Innovative thinking. Memorable performance.	<b>06</b>	<b>10 Marine automation solutions</b> Controlling the power – <b>mtu</b> NautIQ.	<b>36</b>
<b>03 System Solutions</b> Always exploring new horizons.	<b>08</b>	<b>mtu</b> NautIQ BlueVision The right automation system for your yacht.	<b>38</b>
<b>04 Applications Overview</b> Propulsion systems tailored to you needs.	<b>14</b>	Pininfarina Bridge Components	<b>39</b>
<b>05 Core Technologies</b> Propulsion technology at a glance.	<b>16</b>	<b>mtu</b> NautIQ Bridge One platform. One design. One source.	<b>40</b>
<b>06 Marine Gensets</b> For onboard power and propulsion.	<b>22</b>	<b>mtu</b> NautIQ Master Integrated Platform Management System.	<b>42</b>
<b>07 Power Range</b> Outstanding engine and genset output at every level.	<b>24</b>	<b>mtu</b> NautIQ Core Alarm and Monitoring System.	<b>43</b>
<b>08 Emission Reduction Technologies</b> Setting new benchmarks for clean performance.	<b>28</b>	<b>11 Digital Yacht Solutions</b> Maximize availability and performance with digital services.	<b>44</b>
<b>NOx-Conformity Test</b> IMO 3 certified marine engines with SCR aftertreatment.	<b>29</b>	<b>12 Premium Upgrade for Yacht Engines</b> Aesthetic refining for perfect experiences.	<b>48</b>
<b>Sustainable Yacht Solutions</b> Sustainable fuels make internal combustion engines cleaner.	<b>30</b>	<b>13 Premium Yacht Service</b> Leave your worries on shore. Global support, 24/7.	<b>50</b>

**1 Yacht Fortunate Sun (ex: Perfect Prescription)**  
2x **mtu** Series 4000 12V Engines  
kW 3,475/bhp 4,660<sup>^</sup>

**2** We are a reliable and trend-setting partner which acts with foresight in a results-oriented manner.

**3** We are passionate about fulfilling the needs of our customers with the utmost professionalism and precision.

**4 Viking 92 Sky Bridge**  
2 x **mtu** Series 2000 16V M96L Engine  
kW 1,939/bhp 2,600



Welcome to the Cutting Edge

# PIONEERING THE POWER THAT MATTERS.

01

Rolls-Royce provides world-class power solutions and complete life-cycle support under our product and solution brand **mtu**. Through digitalization and electrification, we strive to develop drive and power generation solutions that are even cleaner and smarter and thus provide answers to the challenges posed by the rapidly growing societal demands for energy and mobility. We deliver and service comprehensive, powerful and reliable systems, based on both gas and diesel engines, as well as electrified hybrid systems. These clean and technologically-advanced solutions serve our customers in the marine and infrastructure sectors worldwide.

#### **A solution provider**

Our systems power the largest yachts, the strongest tugboats, and the biggest land vehicles and provide energy for the world's most important mission-critical applications. Through advanced solutions such as microgrids, we integrate renewable energies and manage the power needs of our customers.

Our customized service offerings help you maximize uptime and performance and are supported by our digital solutions, which enable remote monitoring, predictive maintenance, and a range of other benefits that keep your systems running at their best.

For over 110 years, we have provided innovative power solutions for our customers – meeting even the most demanding drive requirements. Our products and services span a wide range of applications and power needs, with standard and customized options.

#### **An expert in technology**

As part of Rolls-Royce, we have long been known for cutting-edge innovation and technological leadership in product development. That same spirit of innovation inspires our sustainability efforts. Our focus is on developing and implementing system solutions that both maximize efficiency and reduce emissions – which in turn work to reduce our impact on the environment.

#### **A passionate and reliable partner**

We at Rolls-Royce spend every day working together with our customers to deliver engines, systems, and complete life cycle solutions that best fit your needs. We understand that each application is different and has its own specific demands. Our engineers embrace the challenge of finding the perfect solution for your unique power requirements. Every step of the way – from project planning, through design, delivery, and commissioning to the lifetime care of your equipment – we are dedicated to helping you get the most from your **mtu** investment.



Powering the World of Yachts

# INNOVATIVE THINKING. MEMORABLE PERFORMANCE.

# 02

We have repeatedly set new standards in the world of yachts: with a passion for technology and an unwavering commitment to the art of high performance and reliable propulsion systems.



#### Your world is our world

Broad horizons. As free as the wind. Enjoyment that knows no bounds. Regardless of whether you are cruising along the most beautiful coasts of the world, coasting relaxedly into the sunset, or want to experience a rush of speed, we know and understand what keeps you moving.

#### Captain in the luxury class

Yachts are a world of their own: a unique combination of style and quality, comfort and speed. That's why it isn't by chance that **mtu** engines are highly renowned in shipyards, as well as among owners and crews. Yachts with **mtu** engines have a history of setting standards. For example, the ship that set the record for the fastest Atlantic crossing was powered by **mtu** engines. But even beyond races and competitions, **mtu** yacht engines are "first among equals". Through their quality and reliability, they satisfy even the most exclusive demands, and they are considered optimal engines for a wide variety of yacht types.

#### Bundled yacht expertise

- **mtu** yacht engines are not only extremely powerful and compact, but also fuel-efficient, cost-effective and reliable.
- The engines are characterized by low vibration and emissions. They also run extremely quiet for your best boating experience.
- We are a system supplier. That means we integrate all components into a finely tuned system based on the wishes and needs of our clients – from the engine as the heart of the system to the transmission and generators to the electronic monitoring and control systems.
- With **mtu** Premium Yacht Service, we offer a comprehensive portfolio of services and service products to ensure that your yacht retains its value and runs optimally. Our global service network takes care wherever you are.

#### Partners of the highest caliber

If you have the same high demands as we do, if we both have a passion for yachting, then this could be the start of an excellent partnership. Whenever you want to cast off: both we and our engines are ready.



- 
- 1 Performance Yacht  
Logos Marine "Meya Meya", 2x 16V 2000 M93
  - 2 Displacement Yacht  
Feadship "Trident", 2x 16V 4000 M60R
  - 3 Mega Yacht  
Nobiskrug "Sirene", 2x 16V 4000 M60



System Solutions

ALWAYS EXPLORING  
NEW HORIZONS.

03

## System Solutions

## A LIFETIME OF INTELLIGENT POWER.

For minimum emissions, lower operating costs and maximum ease of use hybrid systems are the preferred solution, integrating electric motors alongside conventional diesel propellers. Battery modules can further improve comfort, enabling silent, emission free operations in harbor areas.

**From the concept**

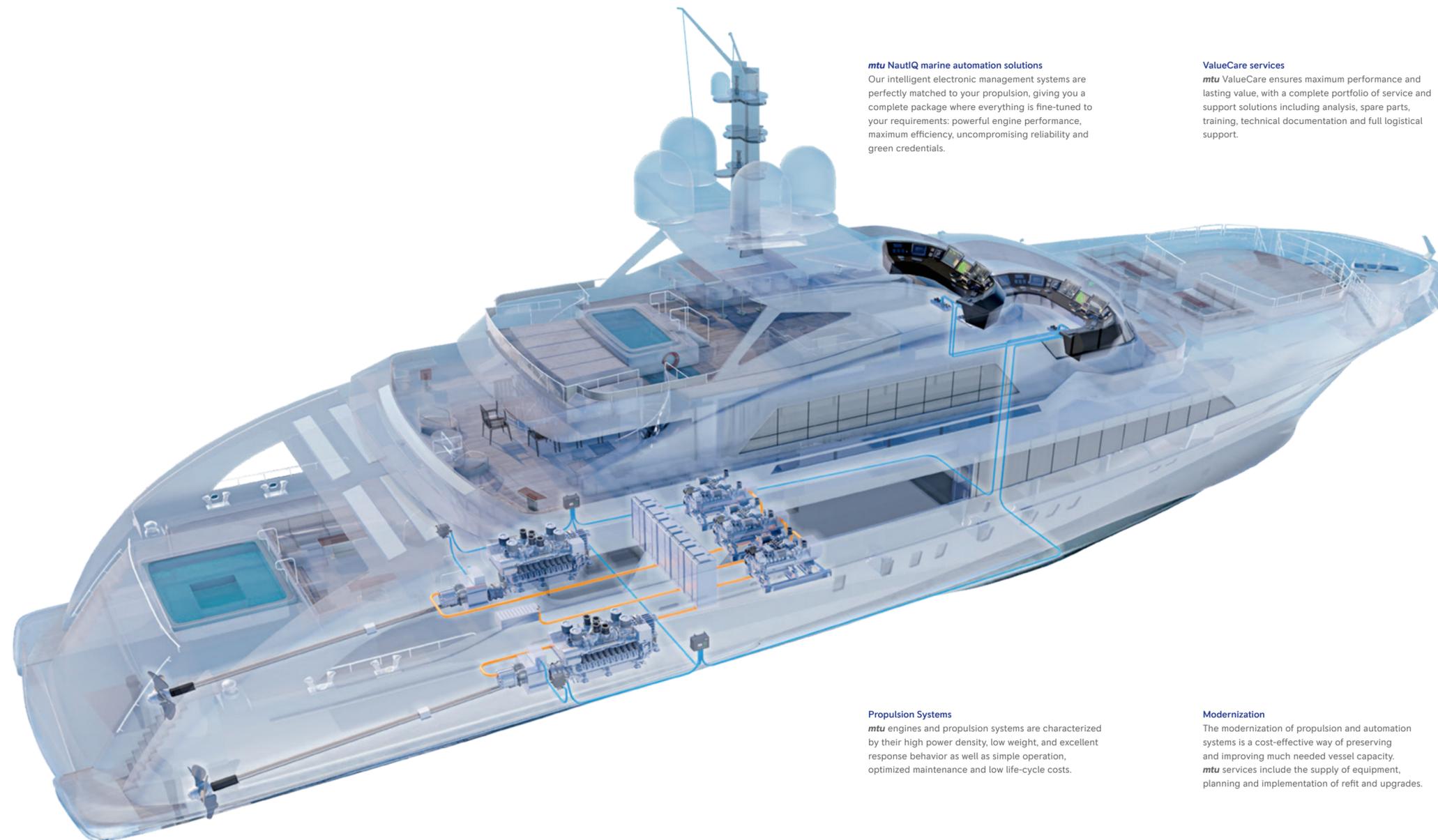
Already at an early stage of design, our engineers provide extensive analysis, documentation and risk mitigation services as well as integrated mechanical, electrical and electronic interfaces.

**Propulsion System Integration**

We provide comprehensive engineering and technical support for the design and implementation of a vessel's propulsion system. Our application engineering team helps reduce design, installation and commissioning costs.

**Unrivaled expertise. Unrivaled system engineering.**

We are system partners. Our expertise in ship applications encompasses every possible propulsion configuration, including engineering services, hardware and software which these configurations require. no matter how extraordinary your requirements, we can supply you with a complete, fully integrated propulsion system. Diesel engine, gas turbine and gearbox, onboard power supply and ship automation – all these form a single system which is both reliable and cost-effective.

**mtu NautIQ marine automation solutions**

Our intelligent electronic management systems are perfectly matched to your propulsion, giving you a complete package where everything is fine-tuned to your requirements: powerful engine performance, maximum efficiency, uncompromising reliability and green credentials.

**ValueCare services**

mtu ValueCare ensures maximum performance and lasting value, with a complete portfolio of service and support solutions including analysis, spare parts, training, technical documentation and full logistical support.

**Propulsion Systems**

mtu engines and propulsion systems are characterized by their high power density, low weight, and excellent response behavior as well as simple operation, optimized maintenance and low life-cycle costs.

**Modernization**

The modernization of propulsion and automation systems is a cost-effective way of preserving and improving much needed vessel capacity. mtu services include the supply of equipment, planning and implementation of refit and upgrades.

**PREMIUM YACHT SERVICE****Our Premium Yacht Service includes:**

- Prompt, expert support from more than 1,200 locations worldwide
- Immediate attention from our 24/7 Customer Assistance Center
- A global inventory of genuine parts to maximize availability
- Comprehensive 24- or 48-month warranty

**Captain Training****On-site at various mtu subsidiaries facilities:**

Training sessions for captains, crew, and shipyard personnel are free of charge and help you get maximum efficiency from your equipment.

**Training topics include:**

- Exploring the mtu Series 2000 M96L on a real engine
- Skills practice on the mtu NautIQ BlueVision NG simulator
- Meeting the local support personnel
- Learning about the mtu Premium Yacht Service and your service options

**Digital Solutions**

We incorporate digital technology with the latest data security standards in a holistic service approach so the yacht can be operated to its full potential. Our digital platform mtu Go enables users to analyze system data remotely (incl. historical data and trends), determine important action steps quickly and plan them efficiently, either independently or together with the service network.

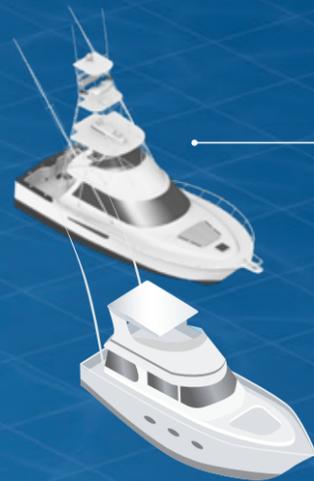
**mtu**Go

**Maximum Comfort**

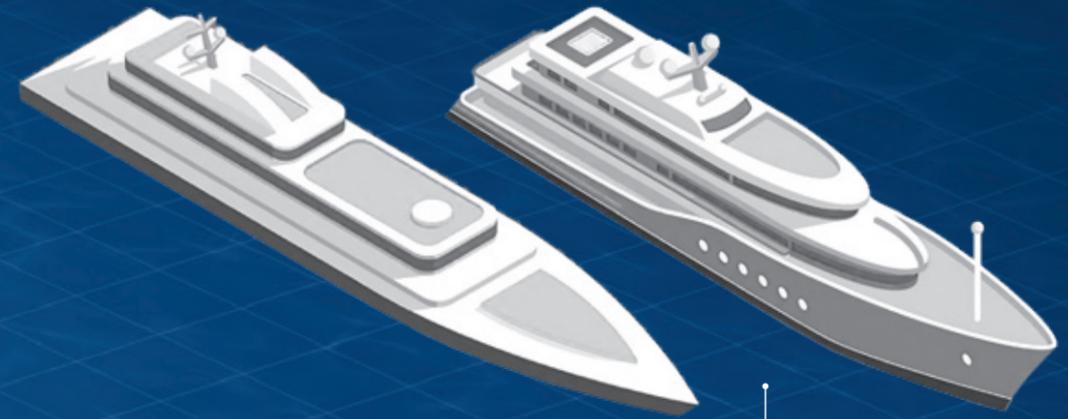
mtu application engineering experience and calculation capabilities will support you selecting the best propulsion configuration, mounting system, flexible couplings in order to fulfill deliver the best performances and the best comfort.

# PROPULSION SYSTEMS TAILORED TO YOUR NEEDS.

## 04



**Sportfishing Yachts**  
More than any other, sportfishing is the application that defines performance in marine diesel engines. None other is as demanding, requiring precise responsiveness, exceptional acceleration, power and unquestioned dependability.



**Mega Yachts**  
Our leading market position enables us to power 38 of the 100 largest yachts worldwide, including the top four. We not only power the largest yachts, but also seven of the fastest superyachts – impressive proof of the agility and performance capabilities of our diesel engines. In the class of yachts with the most exclusive demands, we are the first and maybe only choice.



**Performance Yachts**  
In a class of yachts where unbridled speed reigns supreme, our engines display an overwhelming amount of power paired with an impressive level of endurance. That is what we call performance.



**Displacement Yachts**  
Anyone who wants to stay at sea longer and go out farther needs a highly sea-worthy, robust, safe yacht, and one that at the same time offers every creature comfort imaginable. In short: a yacht that is powered by us.

Core Technologies

INCREDIBLE POWER PAIRED  
WITH AN IMPRESSIVE LEVEL  
OF DURABILITY.

05

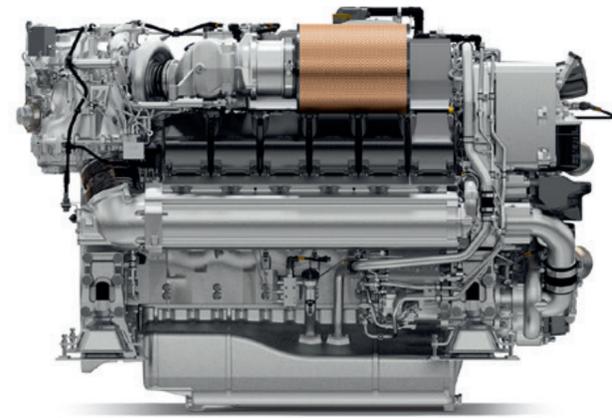


## Core Technologies

## PROPULSION TECHNOLOGY AT A GLANCE.

*mtu* yacht engines are the "first among equals". Their quality and reliability meet the most demanding client's requirements:

- High reliability and availability
- A broad engine characteristic map and unlimited low load capability
- High power concentration at low weight
- Excellent maneuverability and acceleration
- Low acoustic, no visible smoke at all conditions
- Lowest vibrations & highest comfort
- Low fuel consumption over the entire operating range
- Long maintenance intervals



## Series 2000

*mtu* Series 2000 combines best in class power-to-weight ratio with effortless unfolding of power and bottom end torque.

## Analytics

We use the most diverse analysis and simulation tools to develop state-of-the-art propulsion solutions. That includes vibration analysis, component strength verification and dynamic response simulations of entire propulsion systems.

## Electronics

The latest generation of *mtu's* electronic management system, Advanced Diesel Engine Control (ADEC), controls key systems such as fuel injection and turbocharging that affect both fuel consumption and emission levels as well as vessel performance.

## Fuel injection

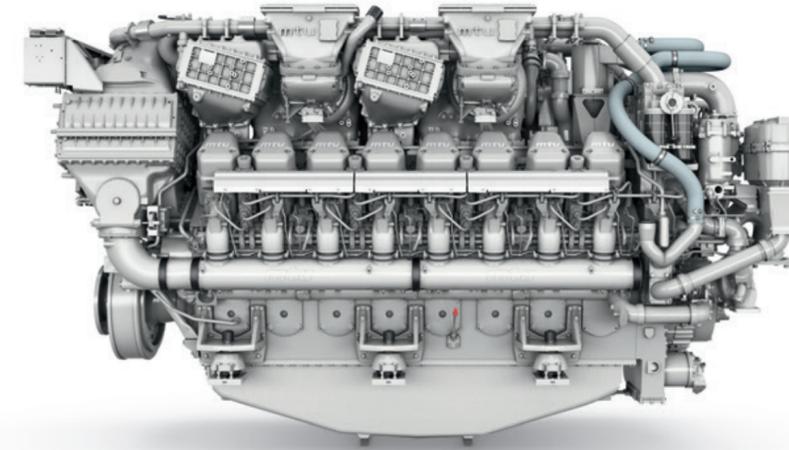
We optimize fuel combustion in the cylinder by means of its electronically controlled common rail fuel injection system.

## Power range

The wide range of *mtu* engines has answers to the most extreme demands that can be made of a propulsion system. Solutions include the highest performance, greatest reliability and availability as well as superior agility.

## Mounting

*mtu* engines are installed on special rubber mountings to reduce the transmission of structure-borne noise to the ship's hull. New active mountings support the passive rubber mountings and make their noise reduction far more effective.



## Series 1163

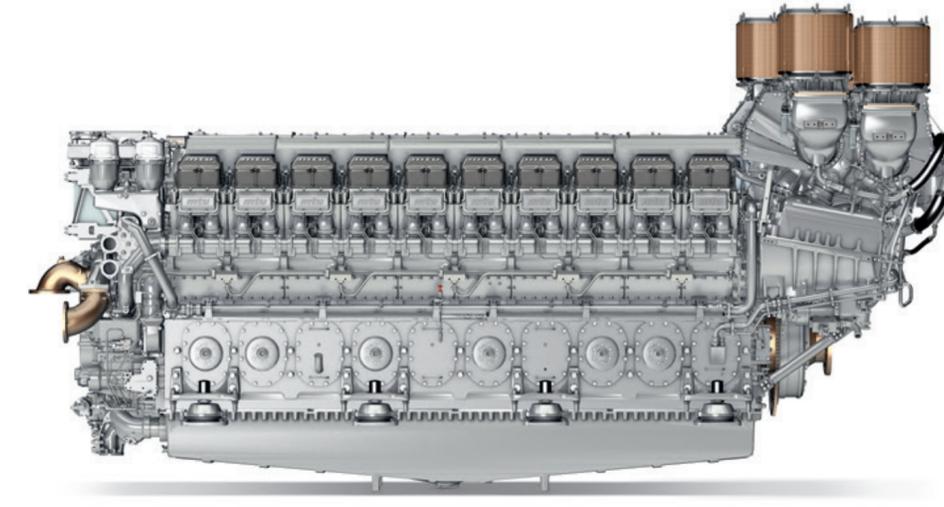
*mtu* Series 1163 combines industry leading safety features with the durability and reliability of the global market leader of high performance marine engines.

## Aftertreatment

We offer exhaust gas aftertreatment systems such as selective catalytic reduction to meet IMO Tier 3 emission limits over lifetime.

## Turbocharging

We develop and produce our own turbochargers for high-performance applications. Sequential Turbocharging helps achieve low fuel consumption and high performance across a broad range of operating speeds.



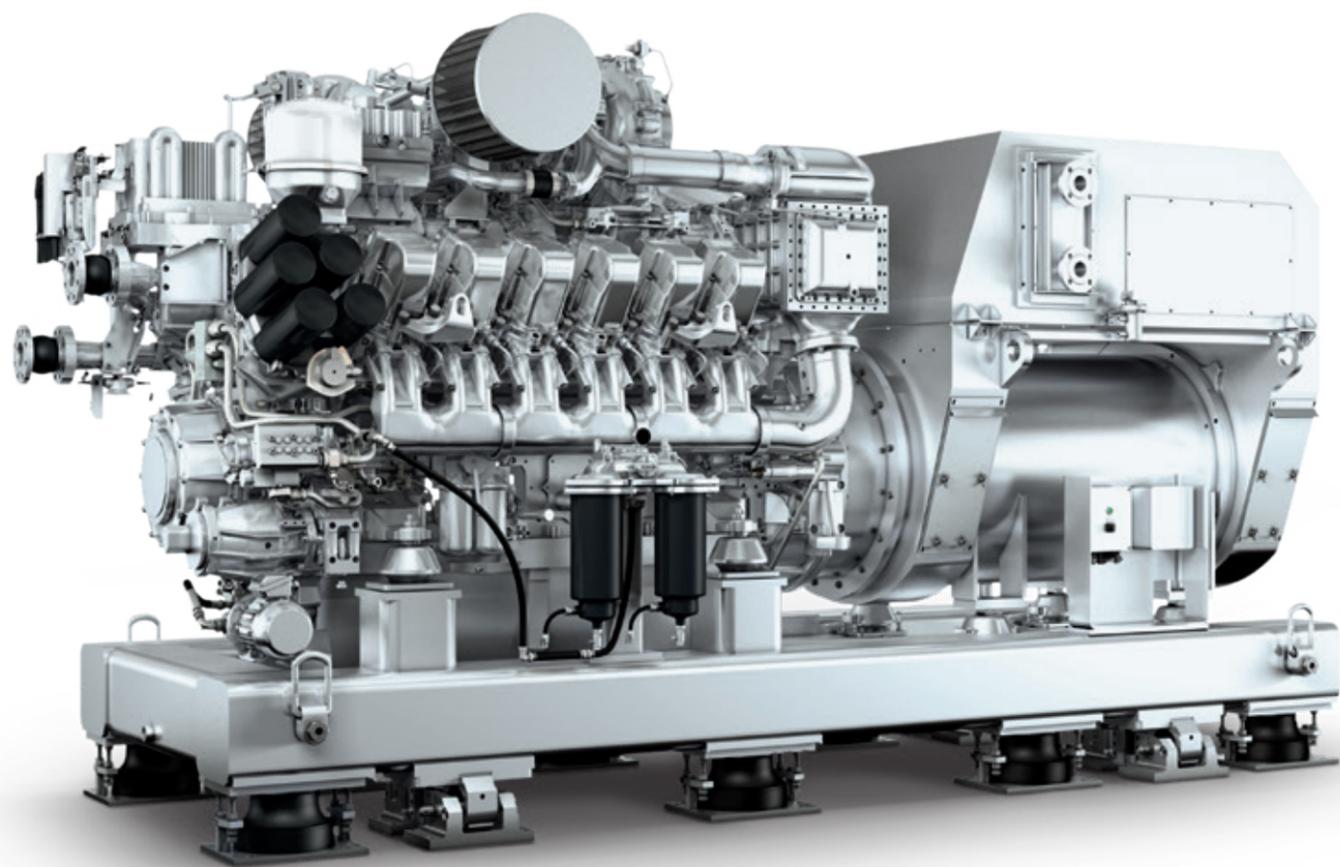
## Series 8000

*mtu* Series 8000 is dedicated to the marine industry with leading safety features, durability and reliability in its class.

## Marine Gensets

FOR ONBOARD POWER  
AND PROPULSION.

Whether you are looking for onboard power, diesel-electric or hybrid propulsion, our gensets meet the full spectrum of your requirements.



Advanced Generator Set  
Here exemplary shown with Series 4000

Our advanced and premium gensets are available as a constant speed version in 50 or 60 Hz or as a variable speed configuration with added electronics. Our sound enclosure and base frame can be specifically tailored to meet your acoustic needs, and the integrated plug-and-play media plate ensures convenient mounting.

We provide emergency gensets for critical situations at sea, when absolute reliability is essential. In addition to gensets for main propulsion and onboard power, We also supply lower-power gensets which can be installed as separate power units in the engine room. Our genset portfolio covers power outputs from 5 to 3,480 kW.

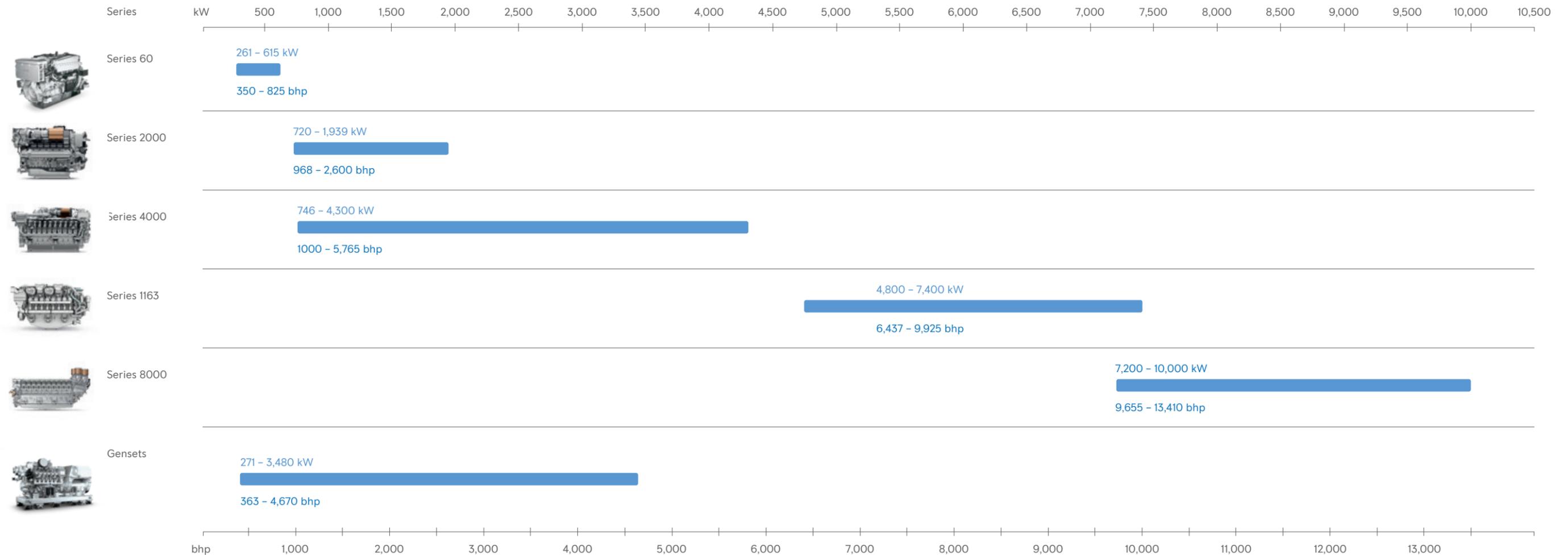
**Your benefits are:**

- Various available configurations, including full tailored customization, to meet your specific needs.
- Overall system responsibility by us based on its engineering and development expertise.
- Outstanding acoustic optimization for best-in-class comfort (noise and vibration levels can be contractually guaranteed, with all values proven on **mtu** test benches to minimize risk).
- Featuring special plug-and-play technology such as media plate and integrated piping for very easy installation.
- Backed up by decades of experience in customer-specific solutions.
- Proven by the highest number of references in yacht industry.
- All of our gensets are classifiable according to e.g. DNV, LRS.
- Gensets with high quality finishing and painting dedicated for the yacht market.

Power Range

# OUTSTANDING ENGINE AND GENSET OUTPUT AT EVERY LEVEL. 07

We are your global full-line partner offering solutions for all emissions requirements as well as the full power range from 261 to 10,000 kW (350 to 13,410 bhp). Our engines set the benchmark for what diesel engines must deliver in yacht applications. Their uncompromising power-to-weight ratio the outstanding drive dynamics and operational availability provides peace of mind.



Sustainable Yacht Solutions

MEET THE NEEDS  
OF TOMORROW.

08



## Emission Reduction Technologies

SETTING NEW BENCHMARKS  
FOR CLEAN PERFORMANCE.

Operating on the water means working in a sensitive environment. Assuming responsibility for protecting the water and air and keeping them clean is second nature to us. We have always played a leading role in developing environmentally friendly engines and, in particular, solutions for reducing emissions. Since we have all the relevant key technologies bundled within our company in addition to our core business of building engines, we have been and will always be leaders in this field. Our engines are an embodiment of the most state-of-the-art technology available.

**Our SCR solution**

As installation space is always restricted inside the engine room, the inhouse developed airless SCR (Selective Catalytic Reduction) solution from us is compact and maintenance friendly. Besides easily accessible doors for replacement of the SCR catalysts, the system also features an integrated mixing pipe and dosing units.

The integrated mixing pipe and DEF (Diesel Exhaust Fluid) dosing allows the shipyard highly flexible pipework between the engine and the SCR box. Additional space to fit the exhaust gas aftertreatment is reduced to a bare minimum. Ammonia slip is prevented under all operating conditions by a closed loop regulated control system. Besides the exhaust emissions related features, our SCR system also reduces noise.

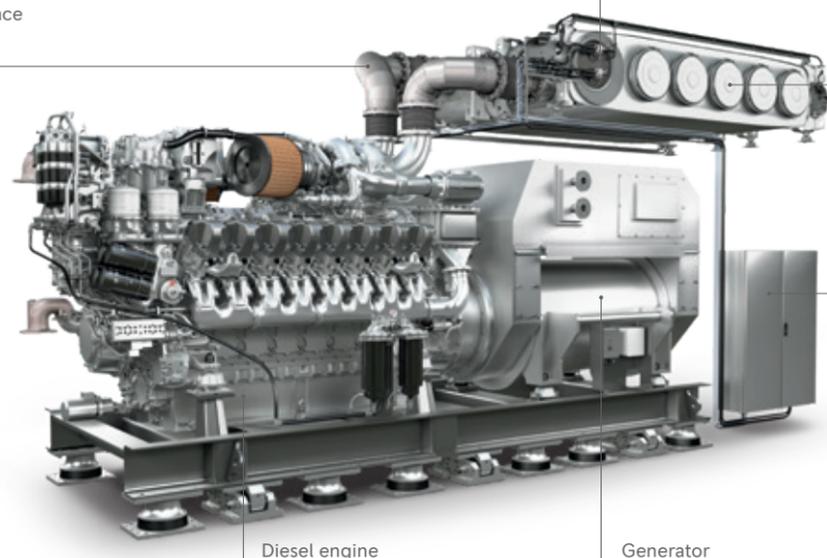
Mixing pipe – The integrated mixing pipe allows highly flexible piping between the engine and the SCR box and saves installation space

Dosing units – The two DEF dosing units work airlessly and are built into the SCR box

Maintenance doors – The maintenance doors allow easy replacement of the SCR catalyst

Cabinet – The cabinet houses the monitoring and control units as well as the DEF pumps

Diesel-mechanical propulsion solution or generator set with SCR box



Diesel engine

Generator

## NOx-Conformity Test

IMO 3 CERTIFIED MARINE ENGINES  
WITH SCR AFTERTREATMENT.

The certification of marine diesel engines fitted with SCR systems is regulated by IMO's 2017 SCR guidelines (Resolution MEPC.291(71)) and the NOx Technical Code 2008. For engines fitted with SCR, new requirements regarding the monitoring of the SCR system must be followed in order to ensure compliance with the emission regulations onboard the ship.

**Our NOx-Conformity Test solution:**

We are using SCR systems which are based on a closed-loop reductant control strategy, which uses NOx sensors upstream and downstream from the SCR unit as input parameters. The SCR controller continuously monitors and stores SCR operating data in the controller memory. This enables access to detailed information on the SCR system's health, without required additional emission measurements ("spot checks" as stipulated by the regulations for feed forward SCR systems).

In order to check the current SCR system status, an evaluation of the stored data must be performed at least once a year by our authorized service partner (e.g. during scheduled maintenance) – against a separate order by the owner/operator.

**Conduction and NOx-Confirmation Document:**

If no problems are identified, our authorized service partner will issue a confirmation document that must be stored on board to prove compliance with the regulations. In case of identified deterioration of the SCR system, the operator will receive a recommendation from us to change the catalyst elements or fix other technical problems.

In certain cases (e.g. insufficient SCR operational data available) additional measurements may be required. In these cases, SCR performance must be recorded on specified engine load points onboard the ship during operation in the presence of a service technician (SCR-Quick-Check).

**Your Benefits:**

- Timely issue of the needed confirmation document, if no problems are identified.
- Official NOx-Confirmation Document submitted by *mtu* authorized service partner.
- Easy provision of the digital document.

Sustainable Yacht Solutions

# SUSTAINABLE FUELS MAKE INTERNAL COMBUSTION ENGINES CLEANER.

We provide world-class power solutions and complete life-cycle support for a wide range of applications. From electrification to digitalization, we strive to develop propulsion and power generation solutions that are even cleaner and smarter and thus provide answers to the challenges posed by the rapidly growing societal demands for energy and mobility.

Thanks to over one hundred years of experience in engine construction and systems business, our products continue to set new standards in power efficiency, low fuel consumption and emissions. At the heart of our sustainable solutions is the development of innovative technologies and systems – as the basis for extremely sustainable, environmentally friendly products of the future.

The focus is on engine efficiency, alternative fuels, electrification, digitalization and fully integrated system compatibility. By 2023, our leading Series 2000 and Series 4000, which account for 85% of engine sales, will be able to run on sustainable fuels such as e- and second-generation biofuels.

**Electrification**

- Fuel cell for onboard power supply and part of the main drive



**Sustainable fuels**

- CO<sub>2</sub> neutral fuels
- Power-to-X: e-Diesel / e-LNG/ eMethanol / e-NH<sub>3</sub>

**Integrated system solutions**

- Optimization of the propulsion system to the ship's mission profile

**Digitalization**

- Digital Twin
- Autonomous self-learning regulations

**Efficiency improvement**

- Further optimization of engine and systems for CO<sub>2</sub> and emission reduction

Our roadmap fo climate-neutral yacht solutions



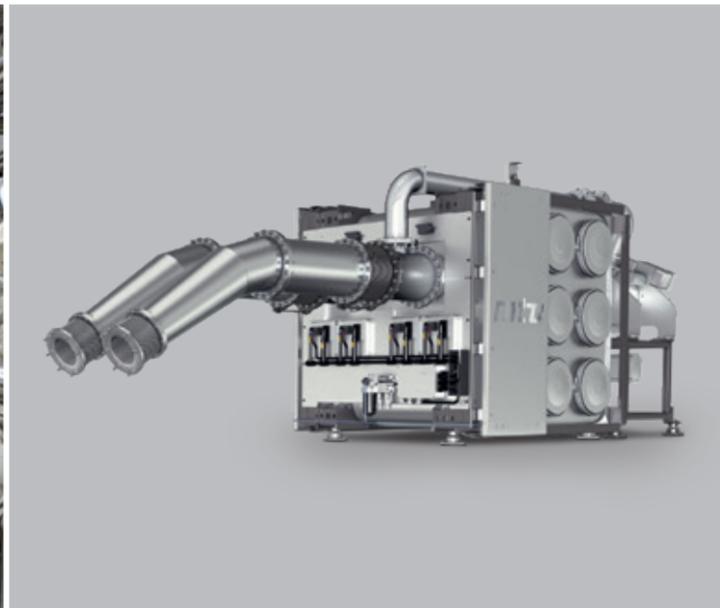
sustainable fuels



CO<sub>2</sub>-free energy supply with fuel cells

2023

2030



FROM  
2023

OUR MAIN ENGINE SERIES  
WILL BE READY FOR  
SUSTAINABLE FUELS.





Hybrid Solutions

QUIET. CLEAN. SMART.

09



Hybrid Systems for Yachts

DISCOVER THE **mtu** HYBRID PROPULSIONPACK.

Make the most of your yachting experience with an **mtu** Hybrid PropulsionPack. Not only does hybrid power reduce onboard noise levels, emissions and vibrations, it also improves efficiency, dynamics and comfort. The components for onboard power and propulsion are modular and scalable. Each hybrid system can be individually designed to meet your requirements.

Enjoy the benefits of silent but highly efficient electric propulsion, exhaust emission-free anchoring – no smell, no smoke, no noise –, emission-free maneuvering in harbor areas, and an all-round environmentally friendly system.



Find your hybrid solution that meets your individual needs. Scan the QR-Code and check out our **mtu** Hybrid PropulsionPack configurator for yachts.



**Powerful**  
Great maneuverability, E-power assisted propulsion



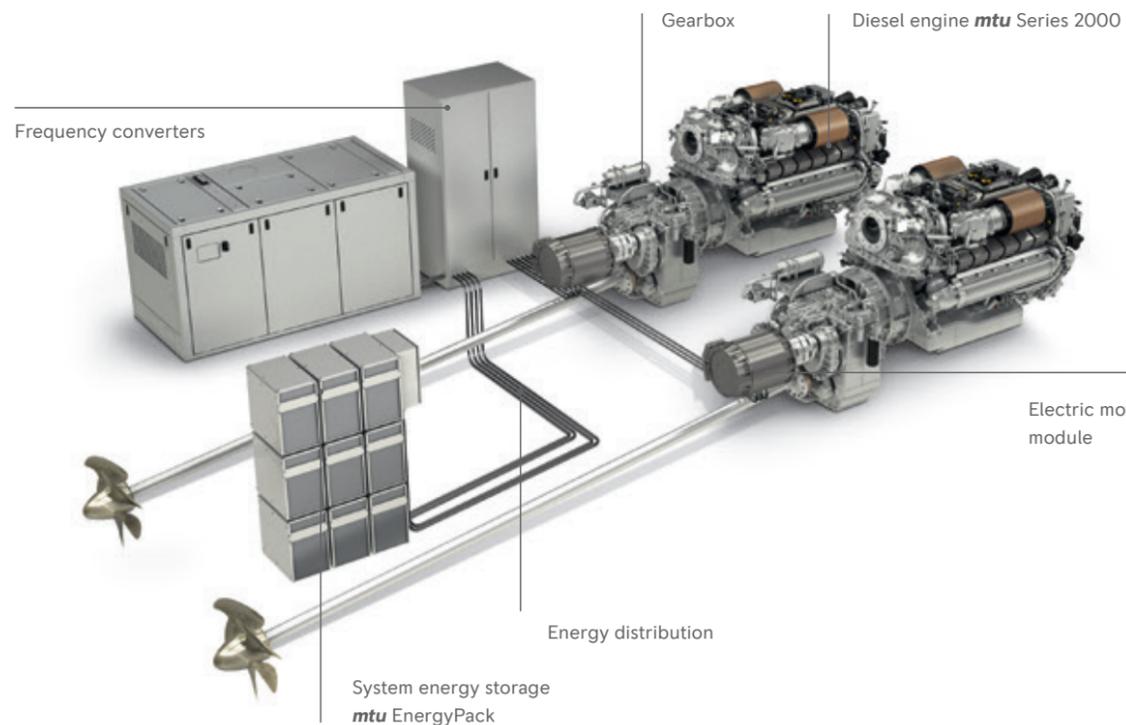
**Comfortable**  
Silent, vibration-free operation



**Clean**  
Meeting the newest emission regulations



**Reliable**  
Optimized maintenance and operation costs



Your yachting style determines the kind of hybrid system that suits you best. You can select from the following three variants.

**Comfort Hybrid**

You can already enjoy silent and emission-free cruising, maneuvering and onboard power with our entry solution. Comfort hybrid is configured with small-sized batteries, small electric motors and small diesel gensets. Even with small sized batteries, emission free anchoring is assured.

**Setup:**

- Small batteries
- Small electric motors
- Small diesel gensets

**Premium Hybrid**

Savor long periods of silent onboard power and long battery-powered excursions. Premium hybrid is configured with medium or large batteries, medium or large electric motors and medium diesel gensets. The batteries allow silent cruising for a long time, overnight anchoring is also no problem. The top speed of your vessel can optionally be boosted with battery power depending on propeller design.

**Setup:**

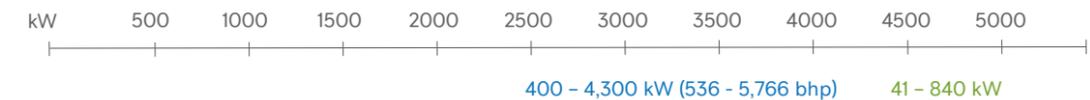
- Medium-large batteries
- Medium-large electric motors
- Medium diesel gensets

**Sport Hybrid**

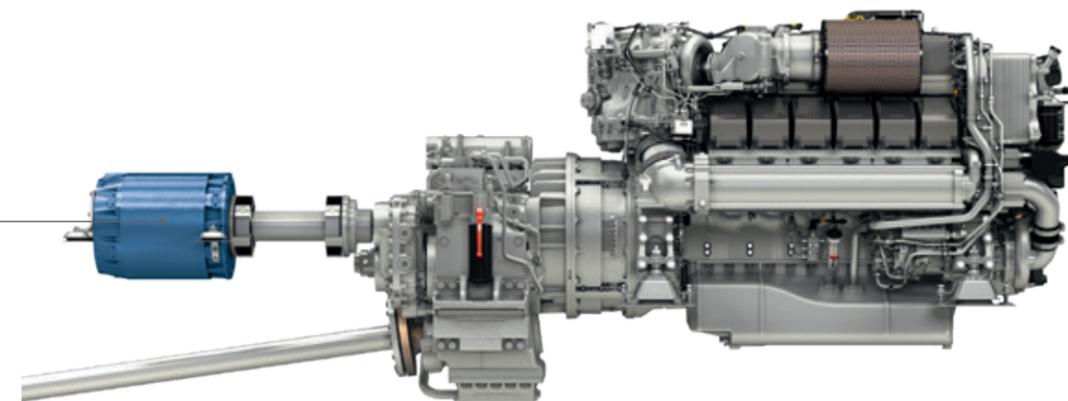
Raise the maximum speed and agility of your yacht with the speed boost and enjoy silent maneuvering in harbors. Sport hybrid is configured with small batteries, medium electric motors and medium diesel gensets. The overall system is designed to offer you the perfect ratio of weight, power and hybrid capabilities.

**Setup:**

- Small batteries
- Medium electric motors
- Medium diesel gensets



2 x **mtu** Series 2000



Additional electric power range

Marine automation solutions

# CONTROLLING THE POWER

## **mtu** NautIQ

10

As a system supplier, we not only build a powerful engine for your yacht, but also the matching automation system to control all its power: With **mtu** NautIQ, you get a customized system that exactly complements the size and style of your yacht and the complexity of its automation needs.

For many years, our sophisticated automation systems have controlled, regulated and monitored the engine functions from bridge to propeller – always doing a perfect job! You enjoy the benefits of a complete package where everything is just right: not only optimum engine performance, but also maximum efficiency, uncompromising reliability and environmental compatibility.

The **mtu** NautIQ range of automation solutions offers the ideal combination of performance and precision individually tailored to your yacht.



Emotional design meets engineering proficiency: our bridge components from the cooperation with the Italian designer Pininfarina.

mtu NautIQ BlueVision NG

# THE RIGHT AUTOMATION SYSTEM FOR YOUR YACHT.

**mtu NautIQ BlueVision NG** is a non-classifiable and classifiable monitoring and remote control system, incorporating a simple design and complete basic functionality. It is available in three versions – Basic, Advanced and Avantgarde – special designed for **mtu** Series 2000 and Series 4000 engines and one to four engine propulsion plants. Their compact size makes for easy installation and commissioning. The optional Pininfarina bridge components interpret automation with their uniquely elegant design language.

**mtu NautIQ BlueVision NG\_Basic**

Primarily used in smaller yachts, **mtu NautIQ BlueVision NG\_Basic** offers automated monitoring control and remote control for the propulsion system. It is connected via interfaces to the engine control system, the transmission system, the propulsion system and the auxiliary systems. Local operating panels (LOP) offer basic functionality for installation in the engine room.



Scan for more details

**mtu NautIQ BlueVision NG\_Advanced**

The extended monitoring and control system has a modular design allowing for flexible configuration. The intelligent technology ensures reliable data exchange and reduces the need for excessive cabling. Optimized interfaces between the propulsion and automation systems result in completely integrated solutions that guarantee security, efficiency and reliability – and all from one source.



Scan for more details



Joystick Control Unit



Color Display MTD2

**mtu NautIQ BlueVision NG\_Avantgarde**

Without exception, we can always supply a complete system individually tailored to suit your vessel. **mtu NautIQ BlueVision NG\_Avantgarde** is a complete, single source solution which guarantees optimum safety, efficiency and reliability. **mtu NautIQ BlueVision NG\_Avantgarde** gives you an excellent overview of what matters most on your yacht, allowing you to manage the propulsion plant easily.



Scan for more details



Graphical User Interface (GUI), available in sizes from 15 to 24 inches.

designed by



A breath of fresh air in the yachting business – We maintain a cooperation with the Italian designer Pininfarina. The new design line concentrates on four bridge components: A control lever for clutch- and engine speed control which is shaped like an engine rod. A tableau panel for engine control, a high resolution touch display for monitoring of the propulsion plant as well as analog instruments for engine speed, pressure and temperature.

All components can be integrated in our current automation product line **mtu NautIQ BlueVision NG**. Additionally, **mtu** cooperates with experienced partners to guarantee premium quality.

**Your benefits are:**

- Premium supplier with designer co-branding Pininfarina
- Unique design in the market
- Clear design line for bridge components
- Especially designed with a focus on yacht applications



**mtu** NautIQ BridgeONE PLATFORM. ONE DESIGN.  
ONE SOURCE.

**mtu** NautIQ Bridge is a fully integrated bridge solution. Created in partnership with yacht specialists Team Italia, this outstanding ensemble raises overall ship performance, improves safety and offers a new level of customer experience.

**Integration from bridge to propeller****One platform: Full integration**

The navigation equipment and all the yacht subsystems necessary to monitor and control the entire vessel can be seamlessly integrated in one platform. There is no need to modify third-party equipment or subsystems integrated into **mtu** NautIQ Bridge.

- Easy and consistent user interface to navigation equipment
- In-depth integration of propulsion system
- Multicontrol system – consistent control through a single device
- Touchscreen controls – allow easy HMI customization and software updates
- Equipment health monitoring and vessel optimization
- Connectivity & remote diagnostic of equipment condition

**One design: Elegant, intuitive, user-optimized**

All the information is presented in one elegant and user-optimized design. Easy and consistent user interface to navigation equipment.

- Total Navigation Control, simplified management
- Innovative design and functionality
- Safe and user-friendly thanks to consistent user interface
- Seamless user interface across all integrated subsystems

**One source: Dependability for builders and owners**

All the technology and services come from one source. One face to the customer for complete vessel operating system

- Global service support, anytime, anywhere
- Seamless integration of product and technology
- Scalable, to integrate additional functions
- High flexibility for updates and upgrades



**Fully integrated offering**  
From bridge to engine room



**One face to the customer**  
For complete vessel operating system



**Global service support**  
Anytime, anywhere



**Scalable**  
To integrate additional functions



**Seamless integration**  
Of product and technology



**Unique innovation**  
Customized design and product features



Scan for  
more details



**mtu NautIQ Master**INTEGRATED PLATFORM  
MANAGEMENT SYSTEM.

**mtu NautIQ Master** is an Integrated Platform Management System and offers the optimal solutions to meet a wide range of requirements for the most ambitious yacht designs in terms of performance and size.

**Integrated Platform Management System (IPMS)**

With designs becoming ever more sophisticated, and more capability being integrated with smaller crews on board, it takes proven software functionality to truly meet the highest demands of yachting.

As world experts in the field of integration, we introduce **mtu NautIQ Master**, the latest evolution of our powerful IPMS solution: It is a true systems platform allowing more Commercial Off-The-Shelf (COTS) product integration.

The powerful combination of **mtu NautIQ Master** distributed processing and highly redundant architecture coupled with industry standard equipment and protocols allows for a truly supportable platform, with minimal obsolescence risk. This reduces platform cost, integration time and commissioning/installation issues, whilst retaining the survivability and power of the original **mtu NautIQ Master**, with its scalability and flexibility in terms of system architecture.

**mtu NautIQ Master overview**

**mtu NautIQ Master** offers advanced bespoke solutions designed to suit the complex automation and integration requirements for operators of specialist vessels.

**mtu NautIQ Master** is capable of providing a fully integrated turnkey electrical and automation solution, being a scalable and feature rich system capable of incorporating the following sub-systems and plug in modules:

- Alarm, Monitoring and Control System
- Integrated Platform Management System
- Integrated Navigation Bridge System
- Integrated Vessel Management System
- Integrated Communications
- Digital CCTV Surveillance
- Propulsion Control
- On Board Training System
- Power Management
- Condition Based Monitoring System
- Damage Control System



Scan for  
more details

**mtu NautIQ Core**ALARM AND MONITORING  
SYSTEM.

**mtu NautIQ Core** offers a reliable and highly cost-effective Alarm and Monitoring System (AMS) solution. It is designed using pre-engineered building blocks incorporating built-in expansion for future proofing. A selection of display systems are available to meet operational requirements and console design.

**Reliable and flexible entry-level solution**

**mtu NautIQ Core** has been specifically created to deliver COTS solutions for all yacht applications. The standard **mtu NautIQ Core** packages are future-proofed allowing for later integration of additional hardware, software and auxiliary equipment through the vessels lifetime.

**WINMON™ – Lloyd's award for software innovation**

The WINMON™ tool uses a Tile Layered Graphic (TLG) approach for simplified information presentation. The user-friendly interface for operation and maintenance puts the package ahead of its rivals. Together with the flexibility to integrate third party software packages, the system offers a comprehensive ship management tool.



Scan for  
more details

**mtu NautIQ Gate****Opens up a new world of connectivity**

**mtu NautIQ Gate** has been specifically created to deliver compact and modular connectivity solutions. The standard **mtu NautIQ Gate** packages are future-proofed allowing for later integration of additional hardware, software and auxiliary equipment through the vessel's lifetime.

Comprising **mtu NautIQ Gate\_Master** and **mtu NautIQ Gate\_Slave** boards, the NautIQ Gate platform allows a single unit to be built with the correct number of interfaces. The **mtu NautIQ Gate** platform allows connection to Ethernet and/or ARCNET networks via single or preferably, dual interfaces. This allows **mtu NautIQ Gate** to function not only within any **mtu NautIQ** system but it can also be used to retrofit most other manufacturers' old, unsupported systems.



Digital Solutions for superior yacht performance

# DELIVERING ACTIONABLE INSIGHTS THROUGH DIGITAL SOLUTIONS.

11

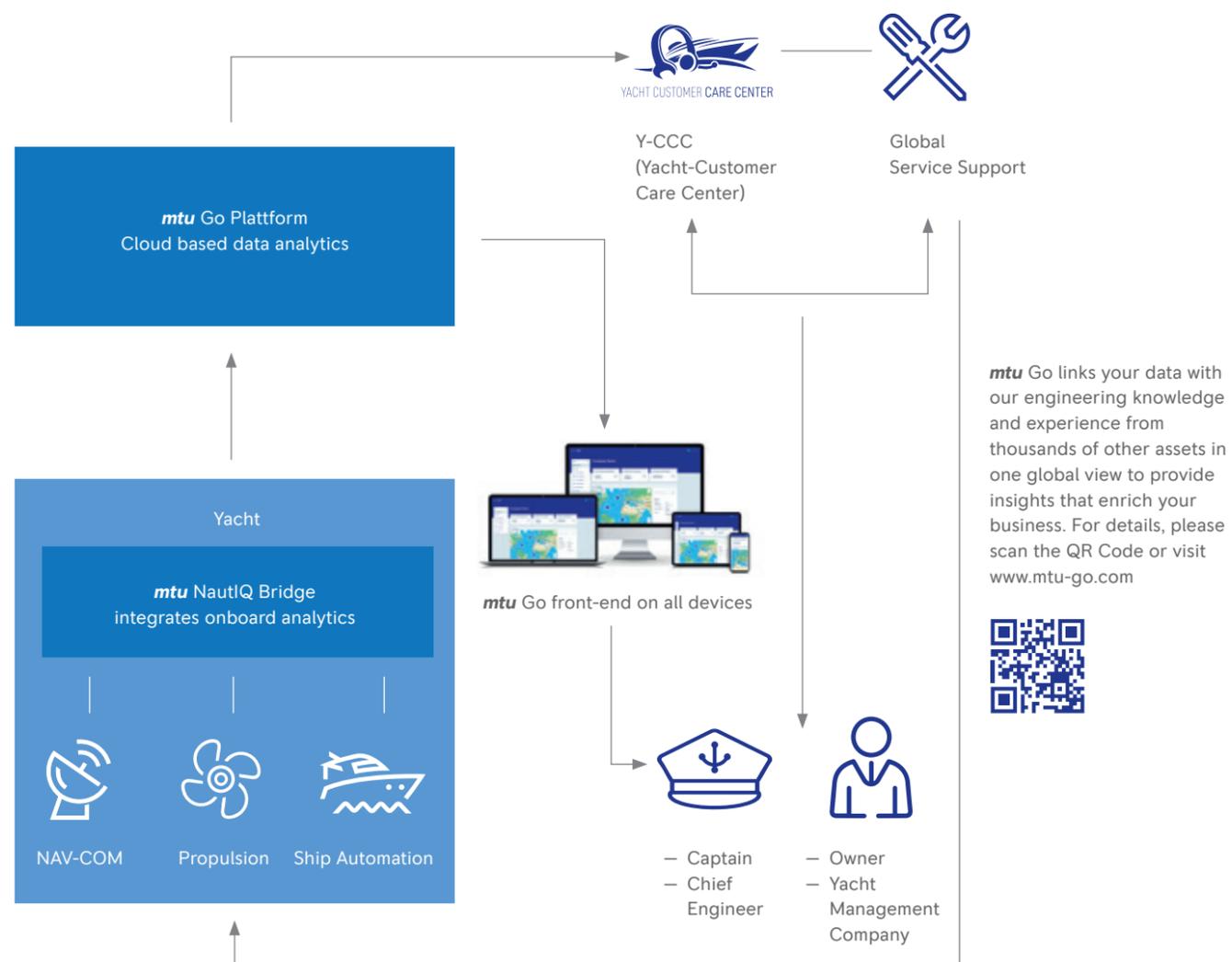
We incorporate digital technology with the latest data security standards in a holistic service approach so the yacht can be operated to its full potential. Our digital platform **mtu** Go enables the user to analyze system data remotely, determine important action steps quickly and plan them efficiently, either independently or together with the service network. Ensure that the yacht runs smoothly with **mtu** Go digital solutions.



Digital Yacht Solutions

# DIGITAL SOLUTIONS FOR SUPERIOR YACHT PERFORMANCE.

Yachting has great demands on engines and propulsion systems. Ensuring that a yacht is available for optimal use, means making the right maintenance decisions. Our digital solutions enable you to keep track of operating hours, system alarms and maintenance schedules so you can plan service intervals based on existing documentation more effectively.



mtu Go links your data with our engineering knowledge and experience from thousands of other assets in one global view to provide insights that enrich your business. For details, please scan the QR Code or visit [www.mtu-go.com](http://www.mtu-go.com)



## mtu Go

### Delivering actionable insights through digital solutions



**Connect all your equipment**

**Data collection from your yacht, system and engine**

Connectivity is the basis for all the advantages of digitally supported service. Using our edge software connected to the control unit, you and your service network can monitor relevant deviations from the optimum condition remotely. We offer several ways of collecting data, including the creation of interfaces to already existing data sets. In doing so, we always adhere to the highest data privacy and security standards of our industry.



**Monitor your yacht**

**Visualization of data for a quick and accurate overview of your yacht**

With the *mtu Go* platform, predefined users, such as captains or yacht managers, can view the system data and perform initial analyses by using diagnostic tools. By accessing the technically relevant information, your service network can provide fast support in handling alarms and planning necessary maintenance together with you. Open interfaces allow you to interface directly to your existing dashboards or systems.



**Manage your yacht**

**Digital solutions for your detailed data analysis on necessary actions**

Supported by *mtu Go* your Service Network is able to analyze all relevant data from your equipment and compare it with data trends. From this we together can proactively derive recommendations for action. In future, the analysis can be enriched with additional external data sets, such as environmental influences or time schedules to create new opportunities for optimized planning.

**Access your data**

- Data privacy and security to the highest industry standards
- Different device and software options ensure optimal connectivity
- Remote monitoring, available for individual or multiple yachts

**Keep track of your data**

- All important data and alarms available at a glance for efficient monitoring
- Intuitive and clear design for easy operation
- Visual comparison of data using the diagnostic tools for initial analyses

**Learn from your data (under development)**

- Algorithms for proactive early detection of deviations
- Troubleshooting based on large amounts of data with artificial intelligence
- Comparison with data outside own fleet leads for faster knowledge transfer and optimal service tool for initial analyses

Premium Yacht Service

LEAVE YOUR WORRIES  
ON SHORE.  
GLOBAL SUPPORT, 24/7.

13

When you choose us, you join an elite class of yacht owners, designers, builders and marine engineers who demand only the most powerful, reliable and sophisticated engines. To keep those engines performing optimally for years to come, our engines come with a best-in-class warranty and several complementary **mtu** ValueCare products and services.

**Your new engines already include\***

- Prompt, expert support from more than 1,200 locations worldwide
- Immediate attention 24/7 from our Customer Assistance Center
- Free re-commissioning inspection, familiarization, orientation and performance sea trial
- A global inventory of genuine parts to maximize availability

Comprehensive 24-48 month warranty

\*see your warranty for details

**Training sessions for captains and crew**

Our captain and crew training – a free-of-charge training module for captains and shipyard personnel – is a great way to get maximum efficiency from your equipment.

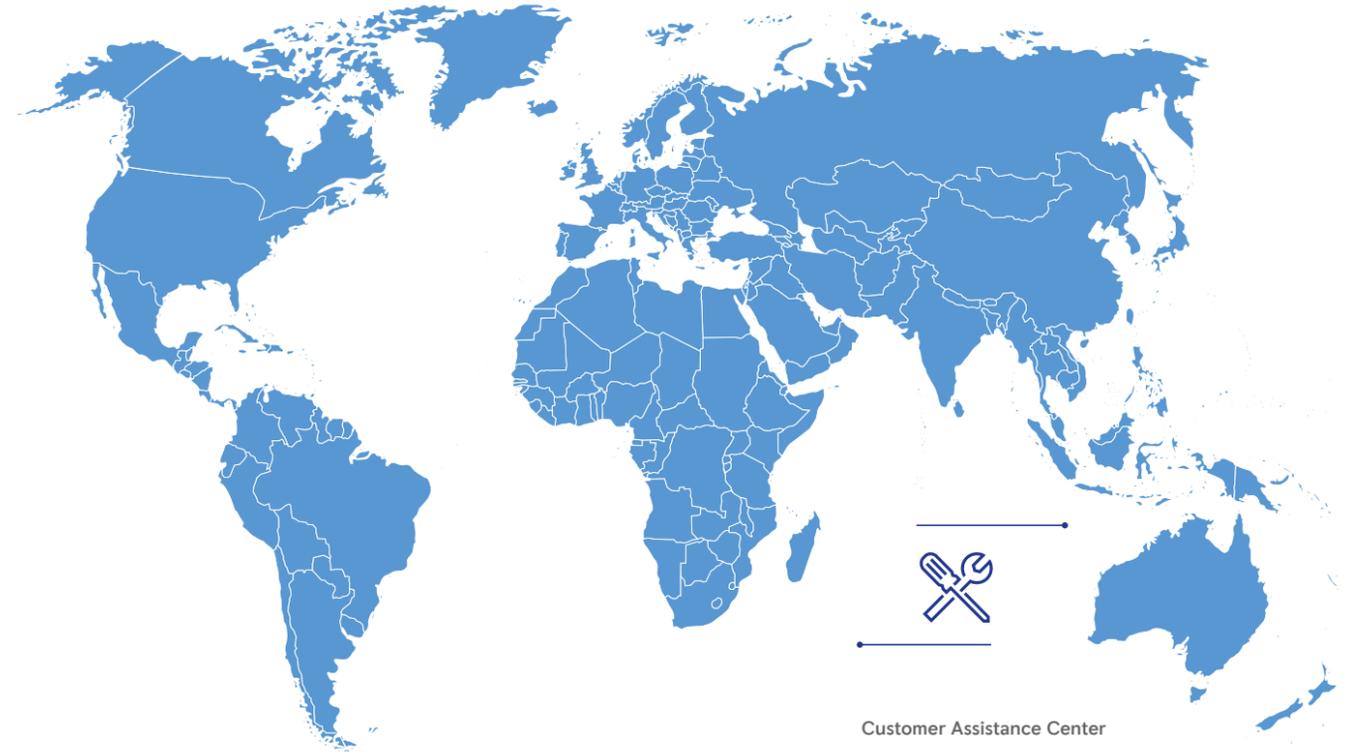
**Premium power deserves premium service.**

It's more than a yacht. It's a symbol of your sense of adventure and your freedom from an ordinary life. A personal dream fulfilled.

Our job is to make sure you can live that dream anytime, anywhere, confident that we're ready when and where you need us. That's why **mtu** ValueCare products and services are the perfect complement to your **mtu** yacht engines.



PREMIUM YACHT SERVICE



**Customer Assistance Center**

One call is all it takes. Agents are available 24/7 to respond to your inquiries and any service needs.

**Customer Assistance Center**  
+49 7541 90-7777

**Asia/Pacific**  
+65 6860 9669

**North and Latin America**  
+1 248 560 8888

**E-mail:**  
info@ps.rolls-royce.com

## Premium Yacht Service

ONE SMART INVESTMENT  
DESERVES ANOTHER.

You're justifiably proud of your yacht. From her powerful performance and unmatched beauty to her handpicked décor, she reflects your individuality and passion. Your yacht is also a substantial investment. You should be able to cruise confidently, enjoying every moment along the way. That confidence starts with reliable engines and continues with **mtu** ValueCare premium products and services.

The only service portfolio designed with your propulsion system in mind to:

**Protect your investment.**

- Extended Coverage (EC) provides added protection beyond the standard warranty and is fully transferrable, enhancing resale value. Extendable up to 11 years, it's also available for used **mtu** equipment.
- Certified **mtu** technicians keep your equipment performing optimally and help you avoid the unexpected.
- Annual Check provides yearly inspections and maintenance recommendations from the experts who know your engines best.

**Optimize ownership.**

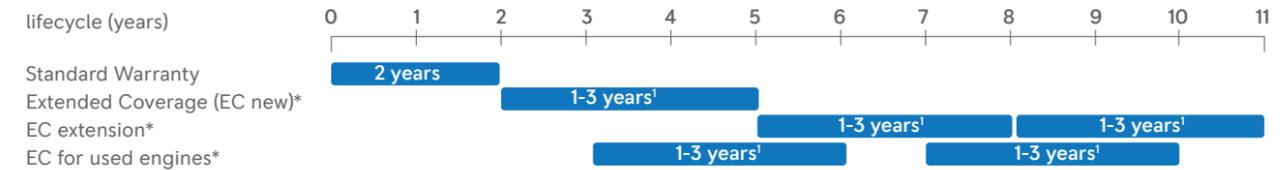
- ValueCare Agreements maximize equipment reliability and optimize lifecycle costs.
- **mtu** Go helps you monitor activity from afar so you can identify faults early and make informed decisions quickly.
- Remanufactured products keep your costs down without compromising quality.
- Training empowers your captains and crew with invaluable hands-on experience.

**Extend equipment life.**

- Genuine parts and consumables keep everything running smoothly.
- Reman and Overhaul solutions turn back the clock, giving your equipment a powerful new life.

## Warranty scope and options Extended Coverage (EC)

## Agreement start and duration



\* See your EC Terms & Conditions for details

**Costs covered<sup>2</sup>**

In case of corrective claim: Material, labor, travel costs (optional)

**Covered equipment**

(only **mtu** scope of supply)  
Engine or entire propulsion system  
Additional equipment: gearbox, automation

**Place of Performance**

Authorized **mtu** service partners worldwide

**Deductible**

500 EUR per repair visit and propulsion line

<sup>1</sup> Maximum validity period limited by extended warranty end date / max. operating hours, whatever occurs first

<sup>2</sup> Exclusions: e.g. Removal & installation of engine, gearbox etc. and all preventive maintenance





Stay posted with more powerful information  
and follow **mtusolutions** under:



Rolls-Royce Group  
[www.mtu-solutions.com/yacht](http://www.mtu-solutions.com/yacht)

The Rolls-Royce name, Rolls-Royce badge and Rolls-Royce monogram logos are registered Trade Marks of Rolls-Royce plc