

Yacht

We move you. With passion.



Power. Passion. Partnership.



Contents

I	A CUSTOMER-ORIENTED TECHNOLOGICAL LEADER	III	YA	CHT PROPULSION OVERVIEW	V	SHIP AUTOMATION SYSTEMS
	I CHINOLOGICAL LEADER		16	Series 60		42 BlueVision_Basic NewGeneration
Π	MTU IN THE WORLD OF YACHTS		18	Series 1600		44 BlueVision_Advanced NewGeneration
	8 Propulsion Systems for Performance Yachts		20	Series 2000		46 MTU Callosum -
	10 Propulsion Systems for		22	Series 4000 for Displacement Yachts		Integrated Ship Automation System
	Displacement Yachts		24	Series 4000 for Performance Yachts	VI	MTU_VALUE CARE
	12 Propulsion Systems for Mega Yachts		26	Series 1163	VI	48 MTU_ValueCare
	Mega Tabilis		28	Series 8000		52 MTU_ValueService
			30	Gas Turbines		54 MTU_ValueSpares
		117	CV			MTU_ValueExchange
		1V		STEMS SOLUTIONS/ VANCED TECHNOLOGIES		56 MTU Service Network
			34	MTU maritune – Surface Drive Propulsion System with Auto Trim	VII	LOCAL SUPPORT. WORLDWIDE.
			35	Combined Propulsion Systems	1711	I QUALITY AND CERTIFICATIONS
			36	Diesel-Electric Propulsion Systems	V 11	I GOALITT AND CERTIFICATIONS
			38	Emissions Reduction Technologies		
			39	Noise Reduction Technologies		



A customer-oriented technological leader.

MTU supplies its customers with technologicallyadvanced products that are proven in the field. MTU's range of products and services for off-highway applications is extensive and includes both standard and customized solutions.







1 Technological leader

As a supplier of high-quality performance propulsion solutions, MTU stands for the highest level of technological expertise.

2 Power

MTU meets even the most demanding propulsion requirements with powerful and reliable engines and propulsion systems.

3 Passion

MTU is passionate about fulfilling the needs of its customers with the utmost professionalism and precision.

4 Partnership MTU is a reliable and trend-setting partner which acts with foresight in a results-oriented manner. MTU is the core brand of Rolls-Royce Power Systems AG, which is a world-leading provider of high- and medium-speed diesel and gas engines, complete drive systems, distributed energy systems and fuel injection systems for the most demanding requirements.

The product range of MTU is one of the widest and most modern in the sector. We offer comprehensive, powerful and reliable engine solutions for yachts, commercial ships and naval vessels, construction and industrial vehicles, agricultural machinery, mining, rail and military vehicles as well as for the oil and gas industry. We also provide a full line of service products to help you maximize uptime and performance.

For over 100 years, MTU has been known for cutting-edge innovation and technological leadership. That same spirit of innovation inspires our sustainability efforts. Today and in the future, our focus is on developing and implementing system solutions to maximize efficiency and meet emissions standards.

An expert in technology

MTU has always set standards in technological expertise for customized product and system solutions. To deliver you maximum power density, we concentrate our innovation on the continuous advancement of our core competencies: fuel injection, turbo charging, exhaust aftertreatment and electronics.

A passionate engine specialist

We spend every day working together with you, our customers, to deliver engines and systems that best fit your needs. Whether a standard system or a customized solution – we are passionate about the art of engine creation.

A reliable partner

We understand the specific demands for diverse applications. In collaboration with you, we look for the solutions which are best suited to your individual requirements. Every step of the way – from the start of project planning, during the design of your integrated system solution, at the point of delivery and commissioning and continuing through the care of your product – we are there with you for the entire lifecycle.









MTU in the World of Yachts

Passion is what drives us. This is just as true today as it was 100 years ago.

MTU has repeatedly set new standards in the world of yachts: with a passion for technology and an unwavering commitment to the art of performance and building engines.

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.
- tion and emissions. They also run extremely quietly for your best boating experience. - We are system suppliers. 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.
- Our yacht propulsion systems contain such innovative technologies as active suspension and maritune.
- sive portfolio of services and service products to ensure that your propulsion system retains its value and runs optimally. Our global service network takes care wherever you are.



- The engines are characterized by low vibra-

- With MTU_ValueCare, we offer a comprehen-

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.

Propulsion Systems for Performance Yachts

Maximum yachting pleasure – consistently.

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's what we call performance.

Uncompromisingly dynamic

Coasting along on the water, standing at the helm and taking great pleasure in the ride: performance yachts offer you this experience first hand. With our engines and propulsion systems, they will be as agile and dynamic as the owners want them to be – and still remain easy to control at all times. Our yacht engines for performance yachts are some of the best in the world. They are renowned due to a full package of built-in advantages – above all an excellent power-toweight ratio. MTU engines are light, compact and generate impressive amounts of power. Their wide engine map makes optimal performance at all engine speed ranges possible. An important note for all those that love speed: your MTU engine can run for an unlimited time at full load.

Present in every harbor

MTU has not only earned its good reputation as a result of its high-quality products, but also because of its excellent service. Our professional service ensures that each yacht has the right propulsion system, and our service network keeps everything running smoothly, all over the world. The services and products available to you as part of the **MTU_Value**Care portfolio ensure that your propulsion system retains its value and runs optimally for the long term.





Speed and pleasure without compromise. MTU engines for performance yachts stand out thanks to their unmatched performance in terms of speed, maneuverability and safety.





Maximum endurance as well as the utmost reliability and safety are the main characteristics of MTU engines for displacement yachts.

Propulsion Systems for Displacement Yachts

Experience freedom that knows no bounds.

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 MTU.

No ifs, ands or buts

Cruising with a great deal of comfort, enjoyment with responsibility, luxury with maximum reliability: displacement yachts stand for all of these things. When powered by MTU engines, these yachts meet the highest demands on performance, economy, handling, and safety.

Enjoyment with responsibility

For decades, we have been one of the world's leading suppliers of yacht engines. Excellent references in equipping a wide variety of yacht types – including highly exclusive mega yachts – attest to our experience and unique expertise.

Their agility and outstanding torque is what really makes our engines for displacement yachts impressive. Like all MTU engines, they are also extremely reliable, economical, and a paragon of environmental friendliness. Our propulsion systems have a high level of fuel efficiency, run extremely quietly, and have good handling, and these characteristics lay the foundations for private cruises which are thoroughly enjoyable.

And our service is just as reliable as our products. We are there for you 24 hours a day, seven days a week, all over the world, and our **MTU_Value***Care* services and products give you added security. So that you can thoroughly enjoy your freedom.

Propulsion Systems for Mega Yachts

Luxury outside demands luxury inside.

In the class of yachts where the most exclusive demands are made, the best is a matter of course. First and foremost is the propulsion system.

One of a kind

For you, compromises are out of the question – not with regard to size and design, nor for technology, materials or interiors. Your floating home is built according to your individual wishes, and it reflects your refined tastes. The ultimate luxury of your mega yacht is made perfect by a customized propulsion system from MTU. Exclusive concepts call for exclusive service: that's why we are there for you right from the beginning, and stay with you over the entire life of your MTU engines. MTU provides you with a drive solution individually designed for your yacht – and always embodies state-of-the-art technology.



Integrated expertise

Our engines have proven their extraordinary abilities time and time again – in millions of hours of operation in a wide variety of applications with a wide range of demands. The experience and expertise gained, from naval applications, for example, are incorporated into the design of our mega yacht propulsion systems. This results in engines with impressive performance, the highest degree of comfort, optimal fuel efficiency, low emission values and innovative technologies.

First class service

Wherever you are cruising, in whichever port you dock, for whatever reason you need us – our global service network, with our "flying doctors", is available to you around the clock. Individualized service concepts, which we custom-design to fit your needs within the scope of the **MTU_Value***Care* program, provide you with maximum security.

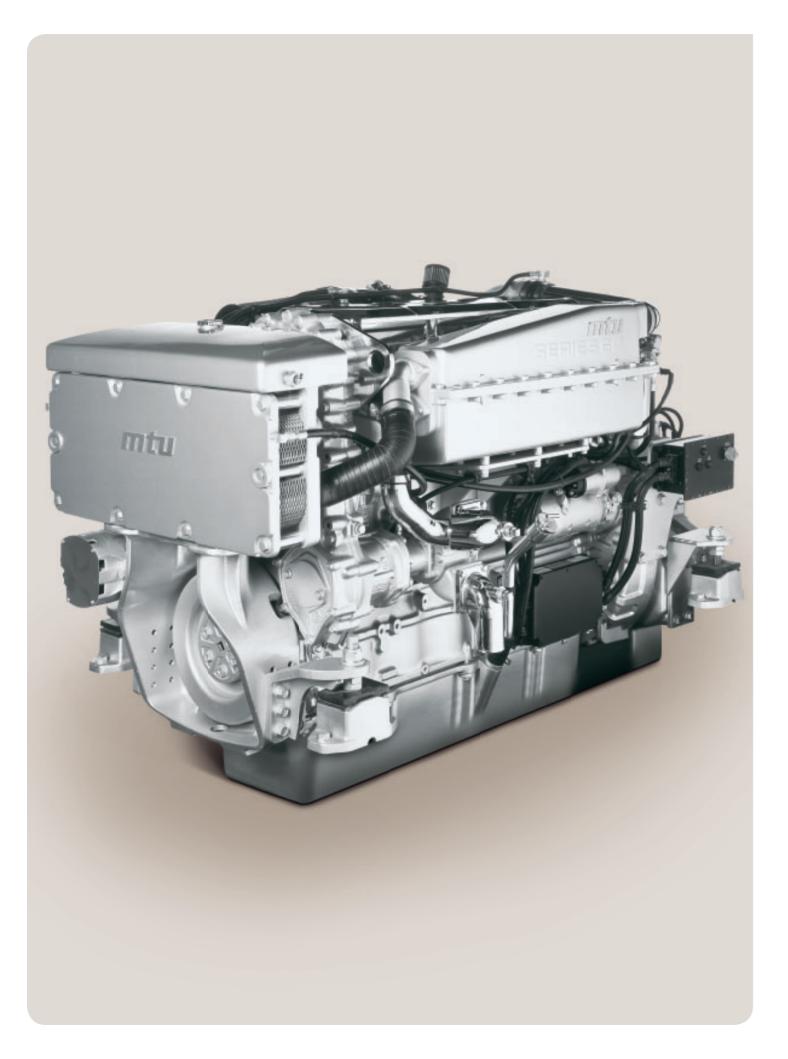
Yacht Propulsion Overview

We move you. With passion.

The more challenging the requirements, the more you need MTU engines. We partner with our customers to develop the optimum propulsion solutions. Our broad range of engines are ideal for meeting even the most demanding needs for power.







If uncompromising performance in terms of speed, agility and safety are needed:

- MTU Series 60 offers optimum power-to-weight ratio combined with the effortless unfolding of power and bottom end torque.
- MTU Series 60 combines industry leading safety features with the durability and reliability of one of the most successful heavy duty engine.
 Design and type approved SOLAS and national certifications are features differentiating this engine in the yachting market.

Series 60 6R

Power output	kW
	(bhp)
Speed	rpm
Emissions	

for mechanical main propulsion

261 - 615
 (350 – 825)
1500 - 2300
All engines comply with emissions
regulations in accordance with
IMO II and EPA 2

Series 60

6R	
Power output	kW
	(bhp)
Speed	rpm
Emissions	

for onboard power generation/		
diesel-electric drives		
50 Hz	60 Hz	
271 - 322	271 - 370	
(363 - 432)	(363 - 496)	
1500	1800	
All engines comp	ly with emissions	
regulations in ac	cordance with	
IMO I; IMO II	IMO II and	
on request	EPA 2	



When your requirement asks for reliability, safety and comfort: MTU Series 1600 for onboard power generation

- Uncompromising availability and reliability in operation design and type approval, built in accordance to all major classification society rules.
- Designed and built according to the highest SOLAS requirements.
- Engineered to the most challenging noise, vibration and harshness standards.
- Robust design and marine engine high quality appearance.
- Engine controls and monitoring interfaces compatible to propulsion engines and ship automation.

Dedicated marine propulsion and power generation products tailored to the needs of the professional marine industry is our obligation and heritage.

Series 1600	
6R	
Power output	kW
	(bhp)
Speed	rpm

Emissions

for onboard power generation/ diesel-electric drives		
60 Hz		
323		
(433)		
1800		
IMO II, EPA 3		



If unmatched performance in terms of speed, agility and safety are needed:

- MTU Series 2000 combines best in class power-to-weight ratio with effortless unfolding of power and bottom end torque.
- MTU Series 2000 combines industry leading safety features with the durability and reliability of one of the most successful high performance marine engines. Design and type approved by major classification societies and SOLAS make the difference of this engine in the yachting market.
- Designated marine design features enable this engine family to fulfill high-performance marine requirements not compromising the powerto-weight ratio.
- Tried, tested and proven for extreme conditions and operating requirements: chosen by the most demanding maritime organizations, such as coast guards, maritime search and rescue services, law enforcement authorities, etc.
- The compact and outstanding design makes this engine family a real focal point in the engine room of a high-performance yacht.

Series 2000	
8V, 10V, 12V, 16V	
Power output	kW
	(bhp)

tor	mech	anical	main	propulsio	n

400 - 1939
(536 – 2600)
1800 – 2450
All engines comply with emissions
regulations in accordance with
IMO II and in part also EPA 2,
EU III A (including RheinSchUO II)
and EU recreational crafts 94/25

Series 2000

Speed

Emissions

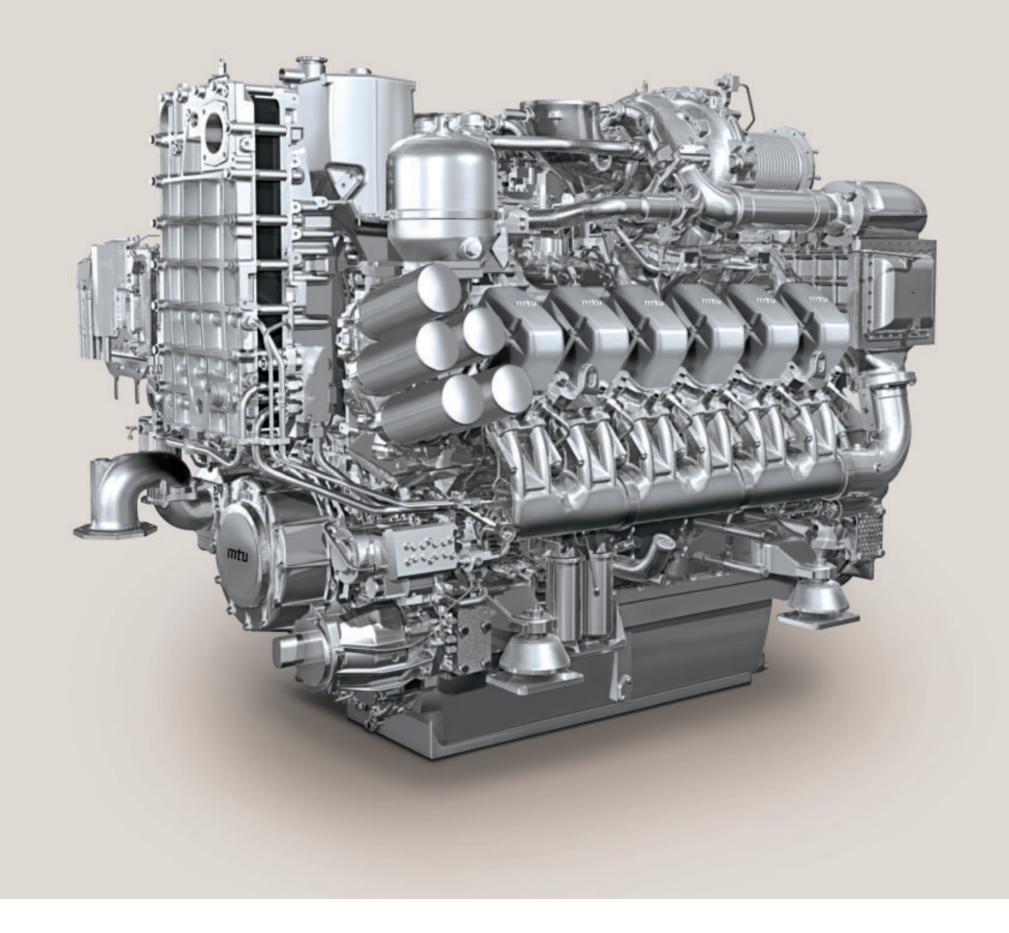
Power output	kW
	(bhp)
Speed	rpm
Emissions	

dieselelectric drives		
50 Hz	60 Hz	
332 - 770	400 - 930	
(445 - 1033)	(536 - 1247)	
1500	1800	
IMO II	IMO II	

for onboard power generation/

Some engines for onboard power generation are also available with interface automation **geno***line*

rpm



for Displacement Yachts

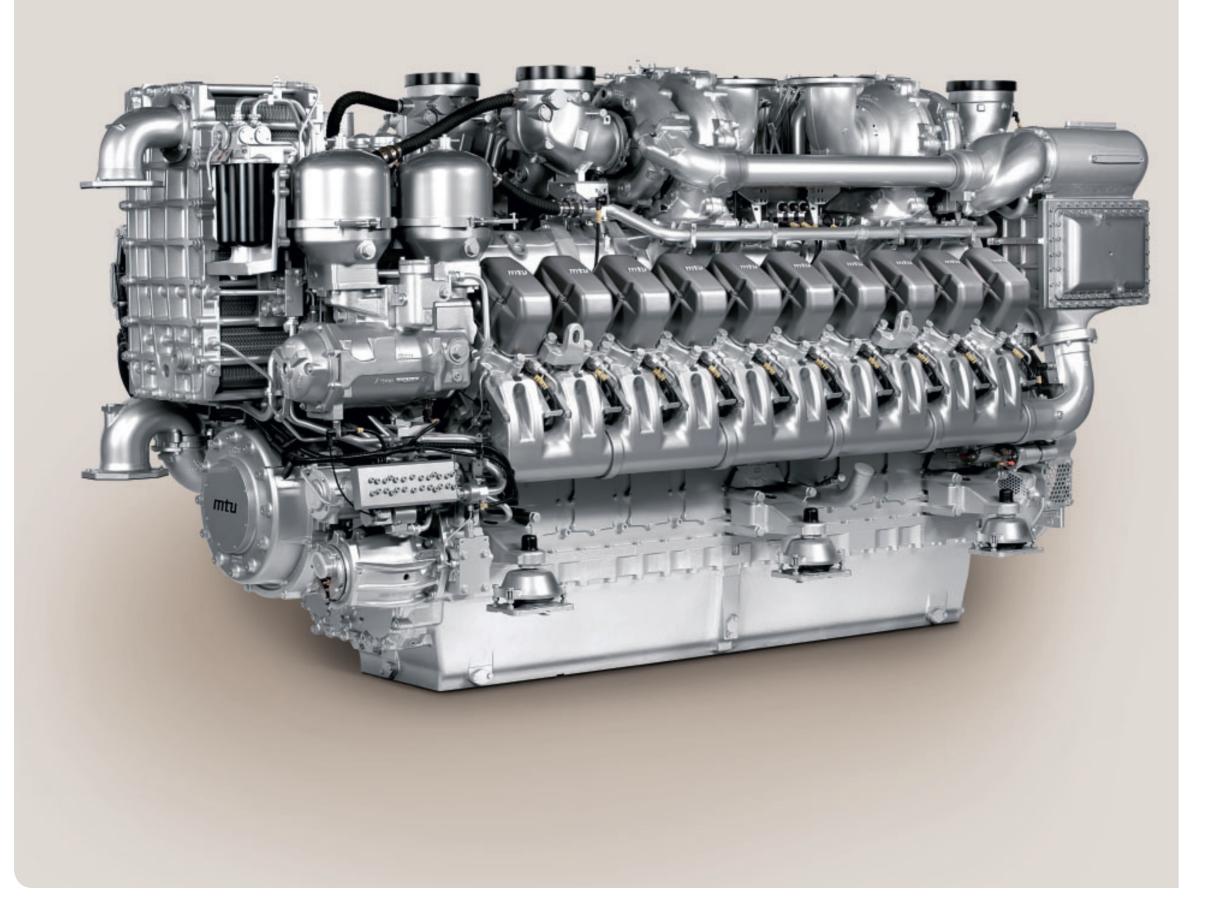
Especially for displacement yachts where endurance, reliability and safety are needed, Series 4000 ensures:

- A tailor-made propulsion system solution based on MTU's expertise in NVH. The MTU noise, vibration and harshness engineering set standards.
- References from very demanding applications are valid testimonials and proof of MTU's system engineering capability.

Series 4000		for mechanical main propulsion	
8V, 12V, 16V, 20V			
Power output	kW	746 - 3600	
	(bhp)	(1000 - 4830)	
Speed	rpm	1600 - 2050	
Emissions		regulations in a IMO II, and in p	nply with emissions accordance with part also EPA 3 and ing RheinSchUO II)
Series 4000		for onboard power generation/ diesel-electric drives	
		50 Hz	60 Hz
Power output	kW (hha)	760 - 2600	920 - 3015
Speed	(bhp)	(1019 - 3487)	
Speed Emissions	rpm	0	1800 mply with emissions accordance with

Some engines for onboard power generation are also available with interface automation **geno***line*

IMO II and in part also EPA 3 and EU III A (including RheinSchUO II)



for Performance Yachts

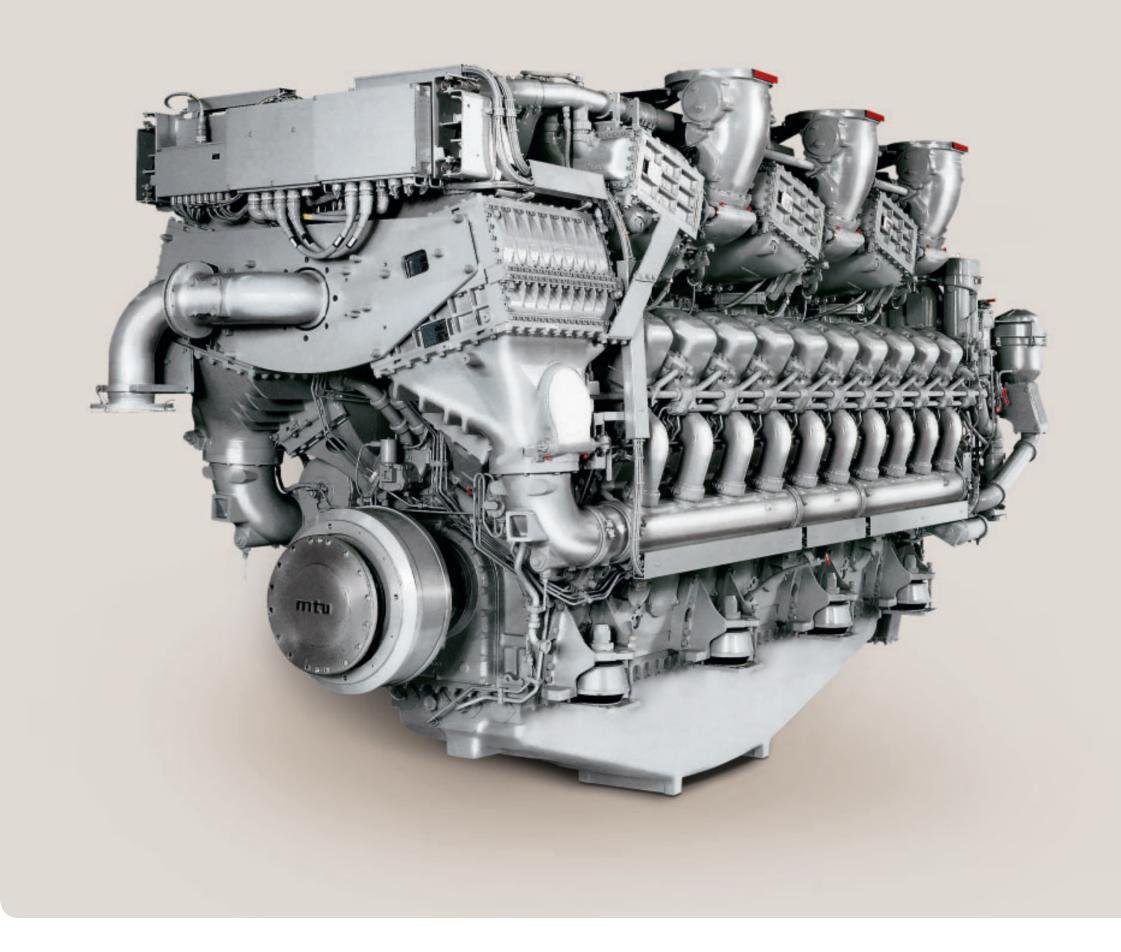
The preferred choice of professionals in the marine industry

 MTU Series 4000 combines industry leading safety features with the durability and reliability of one of the most successful high performance marine engines.

If trend-setting performance in terms of speed, agility and safety are needed, MTU's Series 4000 offers unsurpassed power density in terms of volume-to-power ratio and power-to-weight ratio combined with the effortless unfolding of power and bottom end torque due to MTU's unique sequential turbo charging technology.

Series 4000 12V, 16V, 20V		for mechanica	Il main propulsion
Power output	kW	2040 - 4300	
	(bhp)	(2736 – 5765)	
Speed	rpm	1500 - 2100	
Emissions		regulations in a IMO I/II, and in	nply with emissions accordance with part also EPA 2 and ng RheinSchUO II)
Series 4000			
Series 4000		for onboard po diesel-electric	ower generation/ drives
Series 4000		· · · · · · · · · · · · · · · · · · ·	U
Series 4000 Power output	kW	diesel-electric	drives 60 Hz
	kW (bhp)	diesel-electric 50 Hz 760 – 2600	drives 60 Hz
		diesel-electric 50 Hz 760 – 2600	drives 60 Hz 920 - 3015

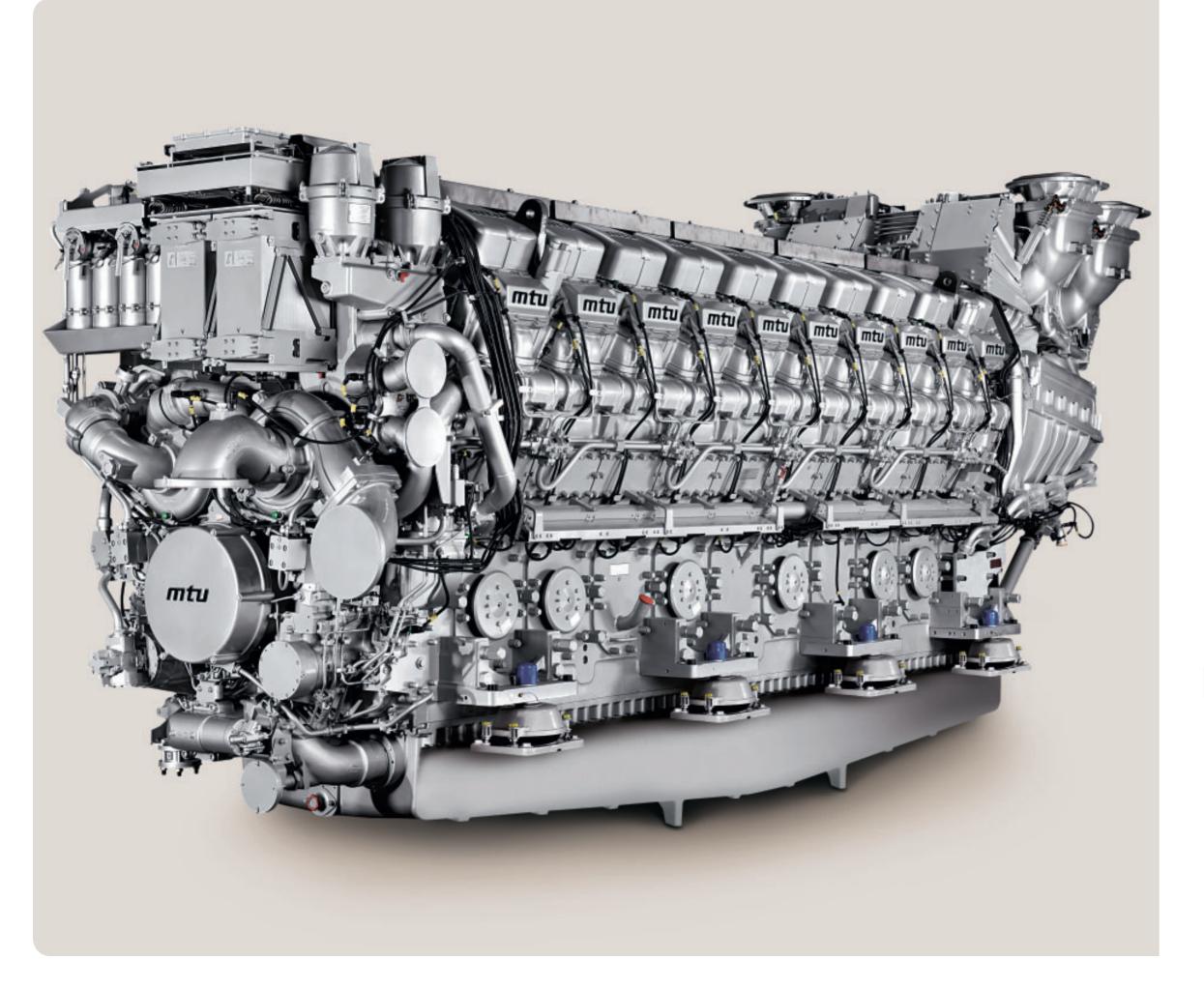
Some engines for onboard power generation are also available with interface automation **geno***line*



The proven and mature engine for the marine industry

- MTU Series 1163 combines industry leading safety features with the durability and reliability of the global market leader of high performance marine engines.
- Unique tailor-made propulsion system solutions based on MTU's expertise in NVH. The noise, vibration and harshness engineering set standards.
- References from very demanding applications are valid testimonials and proof of MTU's system engineering capability.
 Individual customer-specific services for decades to come are the attributes provided to the super yachting fraternity.

Series 1163 12V, 16V, 20V		for mechanical main propulsion
Power output	kW	3600 - 7400
	(bhp)	(4828 – 9923)
Speed	rpm	1200 - 1250
Emissions		All engines comply with emissions regulations in accordance with IMO I or IMO II



The ultimate choice for the large mega yacht

- MTU Series 8000 is dedicated to the marine industry with leading safety features, durability and reliability in its class. Unrivaled operational flexibility whether idling or sailing at full speed, the Series 8000 will deliver - without question.
- Unique tailor-made propulsion system solutions based on MTU's expertise in NVH. The noise, vibration and harshness engineering set standards. References from very demanding applications are valid testimonials and proof of MTU's system engineering capability.
- Individual customer-specific services for decades to come are the attributes provided to the super yachting fraternity.

Series 8000 20V

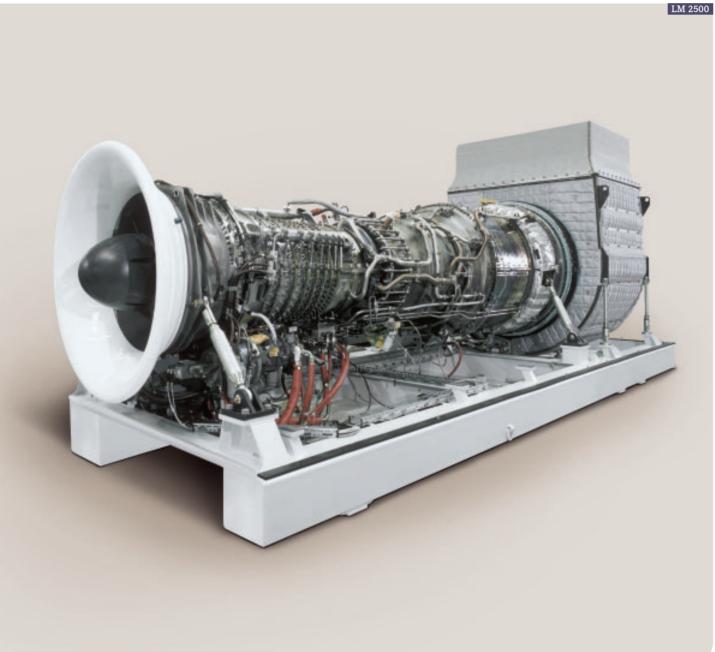
Power output	kW
	(bhp)
Speed	rpm
Emissions	

for mechanical main propulsion

7200 - 10000	
(9655 – 13410)	
1150	
All engines comply with emissions	
regulations in accordance with	

IMO II and in part also EPA 2

Gas turbines LM 2500/2500+/2500+G4

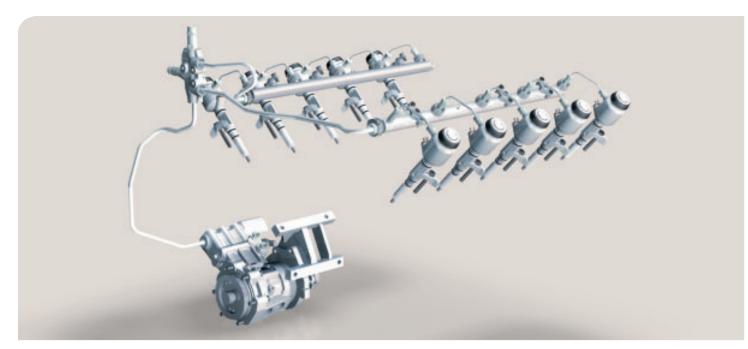


- High power-to-weight ratio
- Low volume

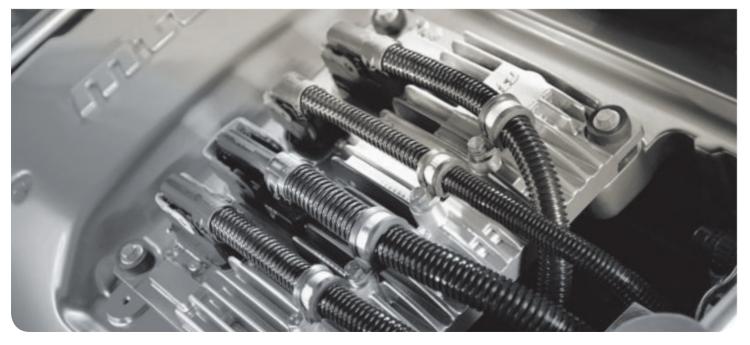
Key features

- Low emissions and vibration
- Operational flexibility drive design and arrangement
- Easy maintenance lower maintenance cost
- Improved acoustic signature
- System package including the gas turbine monitoring and control system

Gas turbine model		LM 2500 / 2500+ / 2500+G4
Power Output	kW	25060 - 35320
	(bhp)	(33600 – 47365)
Speed	rpm	3600







Systems Solutions / Advanced Technologies

A competitive edge. From MTU.

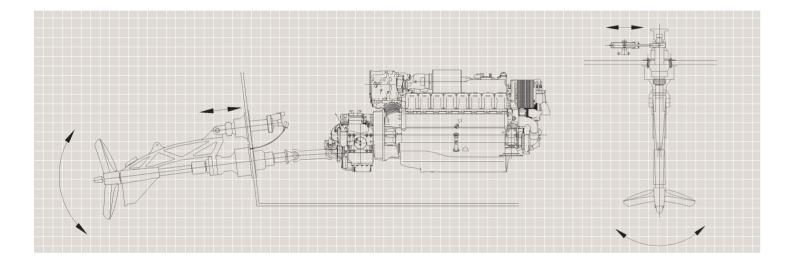
As a leader in high-quality propulsion systems innovation, we are constantly researching and working on new trendsetting technologies. We bundled all the relevant core competencies within our company right from the beginning, and over the years we have continually made advancements to them. By systematically making advancements, we can provide you with a decisive competitive edge - with regard to performance, luxury and exclusivity.



MTU maritune - Surface Drive Propulsion System with Auto-Trim

Safety and optimum handling. Fully automatic.

Surface propellers are a good fit if you want to really get moving. High levels of effectiveness, which means excellent acceleration and top speed, can only be reached with the optimal trim in the respective conditions. That's why there is MTU **mari**tune with auto trim.



maritune is a complete package for your yacht, one that only MTU can offer as a system supplier. It includes the surface drives, from control lever down to the propeller, including the automatic trim of the surface drive.

The **mari**tune scope of supply:

- MTU Series 2000 or Series 4000 diesel engines
- Gearbox including trolling and double steering pump
- **blue***line* or **blue***vision* automation system (standard)
- Callosum Integrated Ship Automation System (on request)
- Fully suspended drive (cardan shaft)
- Hydraulic pack
- Surface drive
- Propeller

Everyone benefits: The shipyards

- Supply of the complete propulsion plant package from one source
- Optimum interface design
- Plug and play installation
- Reduced space requirements, pipes from engine room to the bridge are no longer required
- Databus technology
- Only one hydraulic pack needed for twin shaft propulsion in engine room

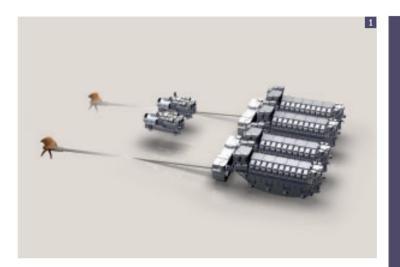
Everyone benefits: The captains and/or owners

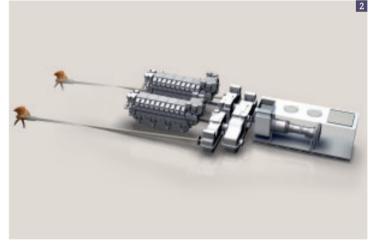
- One partner for responsibility and service world wide
- $-\,$ Fully automatic trim control, captain can concentrate on navigation
- Optimized ship behavior for acceleration, crash stop, driving circles,
- rough seas, reversing - Control of engine speed, clutch position, trim by one control lever only
- By moving the steering wheel only by +/- 140° the full turn can be achieved

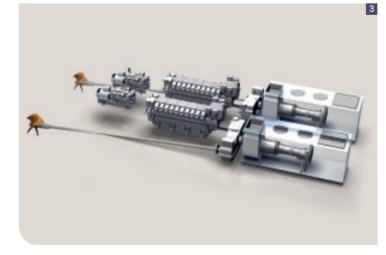
Combined Propulsion Systems

Power - customized.

Nowadays, combined systems with diesel engines and/or gas turbines are the preferred propulsion systems for fast mega yachts. As a general supplier, we configure the propulsion systems that best fits your needs, be it CODOG, CODAG or CODAD. All the components – engines, gas turbines, gearboxes including auxiliary power units – come from one source and are combined into an integrated complete system.







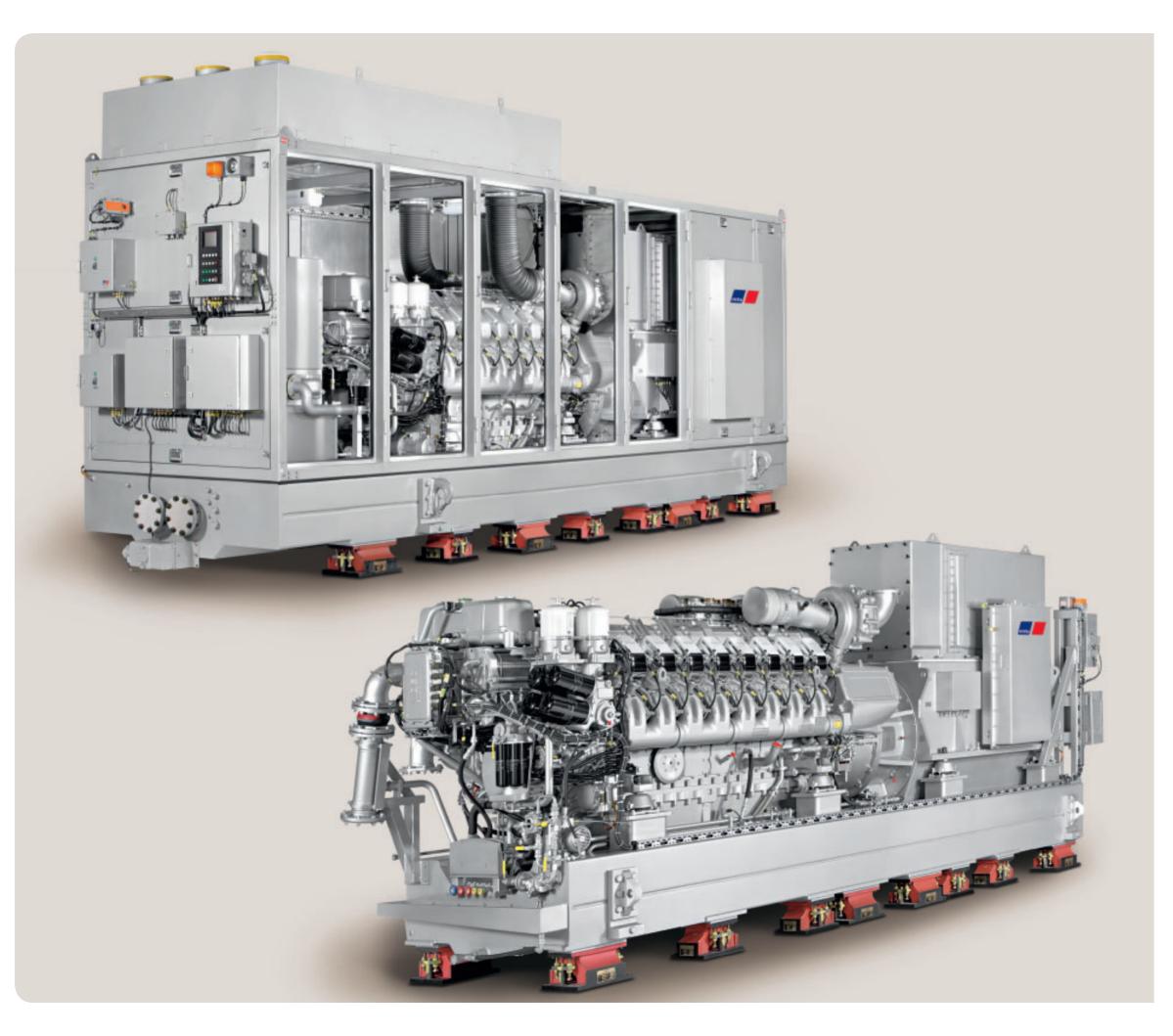
1 CODAD (Combined Diesel And Diesel) with controllable pitch propellers The basic idea: four diesel engines power two controllable pitch propellers (CPP) through two main gearboxes. In normal operation, one diesel engine powers one axle; for maximum speed the other two diesel engines are also switched on.

2 CODAG (Combined Diesel And Gas Turbine) with controllable pitch propellers

The basic idea: two diesel engines and a gas turbine power both CPP through two main gearboxes and a crossconnect gearbox. If only the diesel engine or the gas turbine is running, both CPP are equally powered through the cross-connect gearbox. If both diesel engines are running, this gearbox can be declutched. Through the use of a two-stage gearbox, one diesel engine can bring the ship to cruising speed.

3 CODOG (Combined Diesel Or Gas Turbine) with controllable pitch propellers

The basic idea: two diesel engines and two gas turbines alternately power two controllable pitch propellers through two main gearboxes. The gas turbines are connected via self-synchronizing clutches. The diesel engines power the ship in cruising mode; both gas turbines bring the ship to top speed.



Diesel-electric propulsion systems

In addition to diesel-mechanical engines, MTU also offers complete diesel-electric propulsion systems for yachts. In this case, the mechanical energy produced by the diesel engine is converted into electricity using a generator, and then transmitted to the ship's propellers – with a range of benefits:

- Reduced vibrations during operation through double-elastic mounted systems
- Reduced noise during operation through the use of high-quality insulating capsules
- Highly fuel-efficient
- $-\operatorname{Lower}{\mathsf{emissions}}$
- High operating safety through the use of multiple gensets, in most cases
- The design of the installation, its placement on the ship and its operating modes are all highly flexible
- Low life-cycle-costs



Emissions Reduction Technologies

To make your pleasure pure.

MTU - a leader in assuming responsibility

Yachting is a pleasure in a sensitive environment – and it is especially engaging as a result of directly experiencing the elements. Assuming responsibility for protecting the water and air and keeping them clean is second nature to us. MTU has 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 space. Whether with regard to turbocharging, injection, or combustion, MTU engines are an embodiment of the most state-of-the-art technology available. Running at above 2000 rpm, they are, in comparison to engines with lower rpm ranges, generally more environmentally friendly and emit less nitrogen oxides. The greenest engines are high-speed engines.

Optimizing the combined package

In order to reduce emissions, we utilize both internal and external technologies:

- MTU offers state-of-the-art charging and fuel injection technologies
- MTU yacht engines are available with diesel particulate filters and selective catalytic reduction (SCR).

Optimal results and important goals are reached through the combination of various technologies – such as the reduction of dangerous exhaust emissions and diesel particulate matter. For your pleasure – and for the environment's benefit.

Noise Reduction Technologies

Reducing noises. Raising comfort.

Squaring the circle

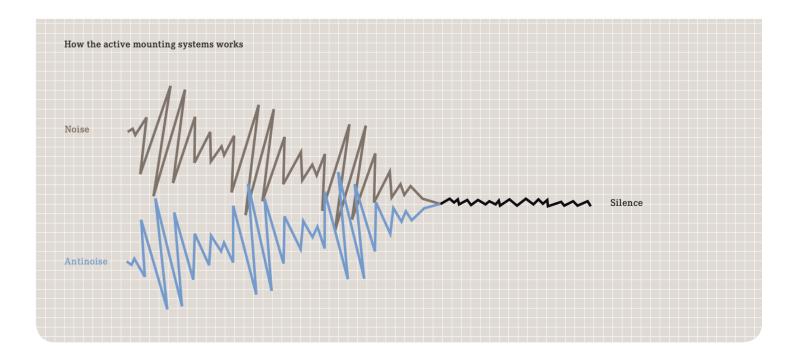
Everyone that spends time on the water wants to fully enjoy the power, speed and dynamics of their yacht – but at the same time, also wants relaxation, recreation and repose. That's why sounds and vibrations that are inevitably caused by engines, pumps, and propellers in operation should be kept to a bare minimum.

With well-engineered concepts for noise reduction on board, MTU has a number of possibilities at its disposal to fulfill both the desire for more power and the need for optimum comfort. Running at over 2000 rpm, MTU engines are perfectly suited for implementing noise-reducing measures. For this purpose, we offer both standard systems as well as complex customized solutions.

Standard Yacht Propulsion Concepts

Significant noise reduction can be achieved with out standard mounting systems. Generally speaking, all yacht engines are elastically mounted. Here are some typical configurations:

- Flange mounted gearbox, resilient mounts
- Freestanding gearbox; resilient mounts
- $-\,$ Standard acoustic optimized coupling systems



Customized Yacht Propulsion Concepts

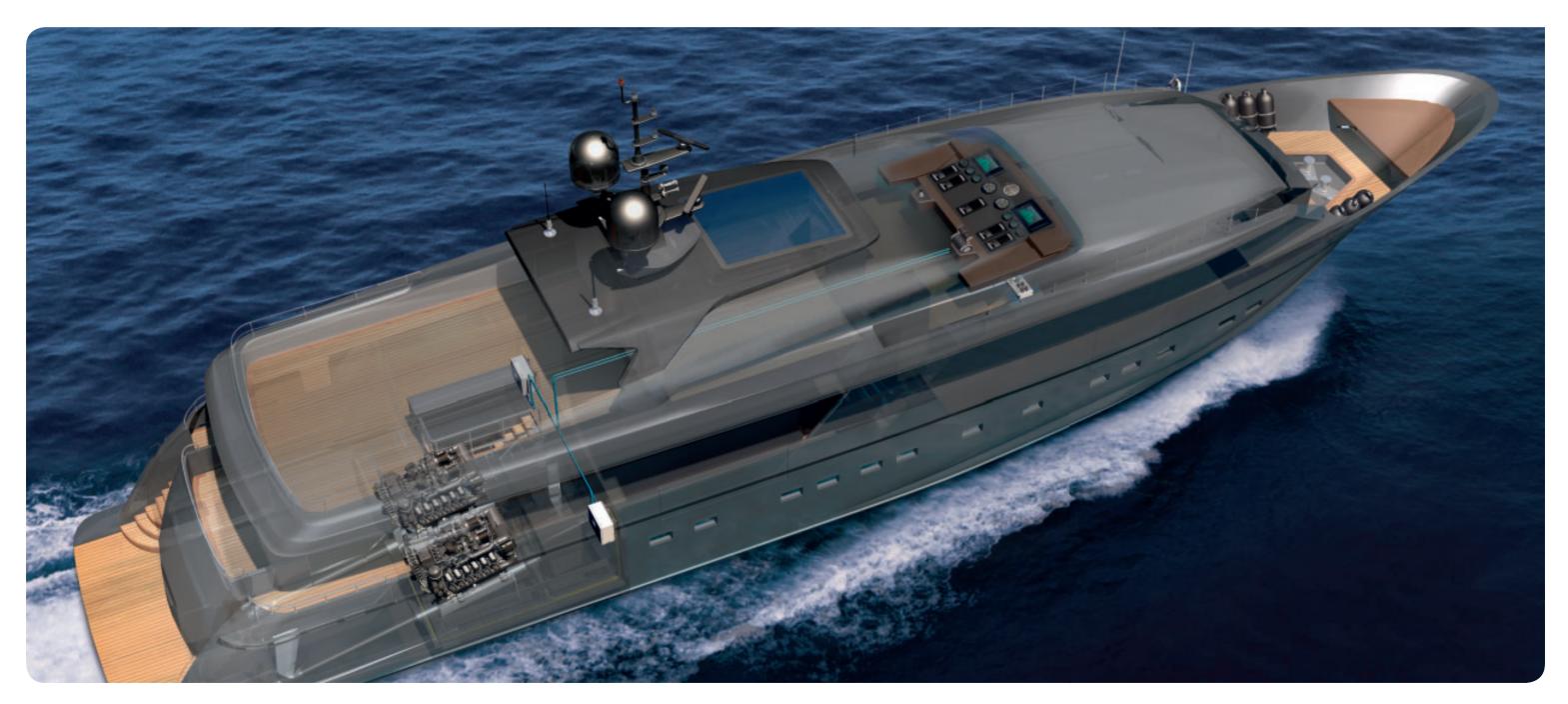
For higher acoustic demands, MTU offers complex systems that are customized for the respective yacht in order to fit the needs of the owner. Our complex systems make use of state-of-the-art technologies, utilize special concepts, and incorporate acoustic improvements:

- The innovative active mounting system combines and complements proven high-quality conventional mounting technologies with special active elements derived from the automobile and aerospace industries. The active element contains the actuators and sensors required for noise reduction. The adjustment and control electronics which are optimized accordingly works on a stand-alone basis that is set up separately.
- With the double elastic mounts, the soundproof engine sits on a frame that is also elastic-mounted. This leads to significantly less structure-borne noise being passed into the ship's structure as is the case with single elastic mounts.
- Integrating the entire engine into a sound-reducing capsule also reduces airborne noise.

MTU Ship Automation Systems

Visionary simple. Simply visionary.

As a system supplier, MTU not only provides you with the perfect yacht engine, but also with an automation system exactly adjusted to it. You get a complete package where everything is just right: not only powerful engine performance, but also maximum efficiency, uncompromising reliability and environmental compatibility. For many years, sophisticated MTU standard automation systems controlled, regulated and monitored the engine functions – always doing a perfect job!





BlueVision_Basic | NewGeneration

Entry at high level.

BlueVision_Basic | NewGeneration is an MTU "non-classifiable" monitoring and propulsion remote control system for MTU Series 2000 and 4000 engines. It incorporates a deliberately simple design and provides a complete basic functionality.

The system is available at particularly favorable conditions and quick to install.

An elementary feature of BlueVision_Basic | NewGeneration is its hardware compactness. As the central system component, the Local Operational Panel (LOP) integrates all basic functions available in this version, simplifying installation, operation and maintenance significantly.

This version is delivered with the Color Graphic Display Basic DIS as standard. Besides a dashboard page, the Basic DIS also offers an overview of all relevant measured values as well as an alarm page.

The scope of supply also includes a Portable Operator Unit, enabling the captain to control the ship from up to 4 selected connection points (e.g. for berthing from the stern if the view from the bridge is limited).

BlueVision_Basic | NewGeneration is primarily used in smaller yachts.

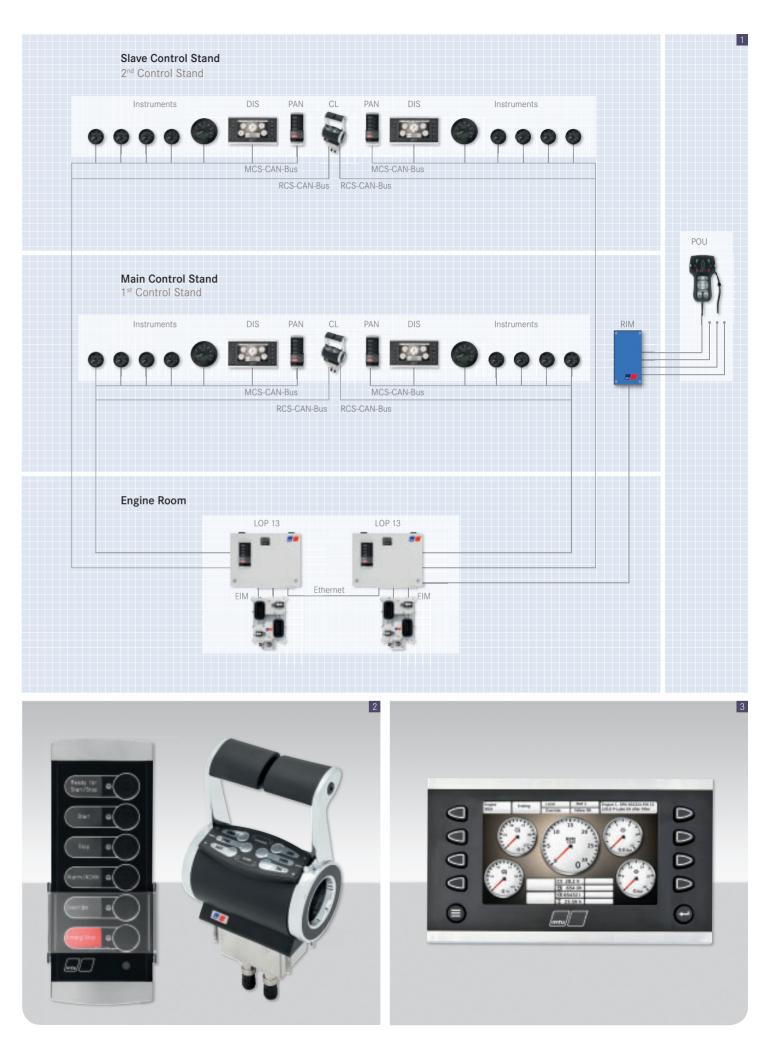
Key features:

- Compact hardware for easy installation and commissioning
- Local Operating Panels (LOP) with basic functionality like start, stop, combined alarm/horn off, for installation in the engine room
- All control stand components installed throughout the ship are connected to the associated LOP via CAN bus

1 Typical scope of supply for BlueVision_Basic | NewGeneration

2 Operating Panel (PAN) Control Lever (CL)

3 Display Basic (DIS)



BlueVision_Advanced | NewGeneration

Demanding more. Getting more.

BlueVision Advanced I NewGeneration is an MTU "classifiable" monitoring and remote control system for yachts, offering a comprehensive standard automation system solution. It is available for MTU Series 2000 and 4000 engines.

An elementary feature of BlueVision_Advanced | NewGeneration is the system bus. The data transmission between the LOP and the commanding control stands is carried out via a redundant Ethernet based field bus. This ensures an absolutely secure communication on the one hand and highest flexibility of the overall system – also with regard to future upgrading - on the other.

This version is delivered with the Color Graphic Display MFD as standard, which has been optimized for the operation in classifiable ships. Besides various dashboard pages, the MFD also offers the possibility to show all of the propulsion system's relevant measured values. All active alarms are comprehensively displayed on a separate page.

BlueVision_Advanced | NewGeneration is a classifiable system in line with major classification societies.

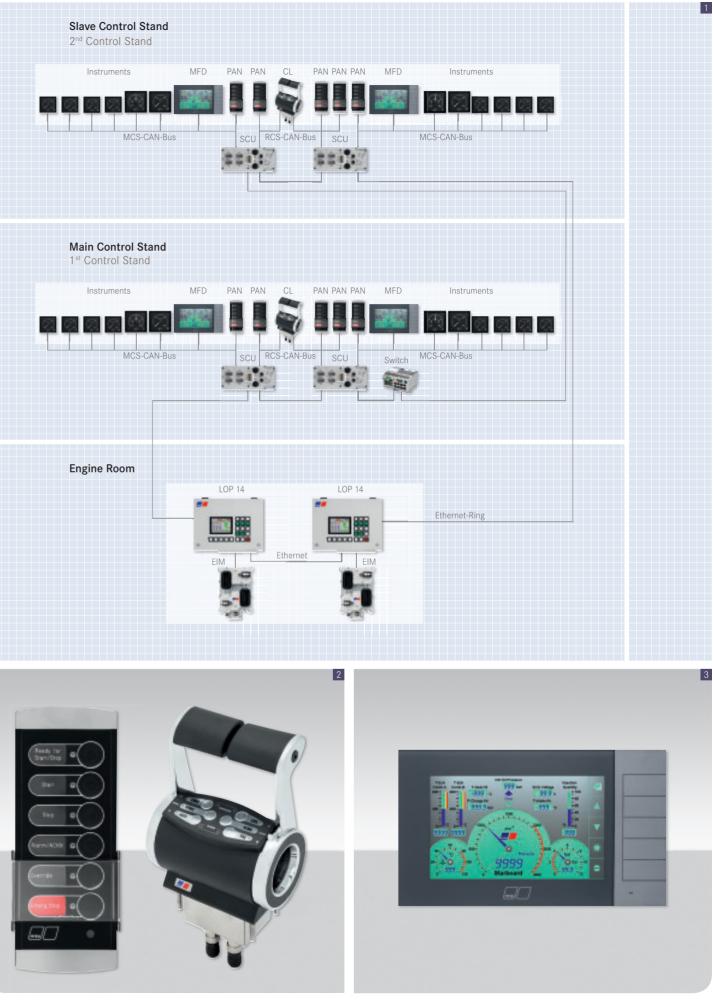
BlueVision_Advanced | NewGeneration is primarily used in performance and displacement yachts.

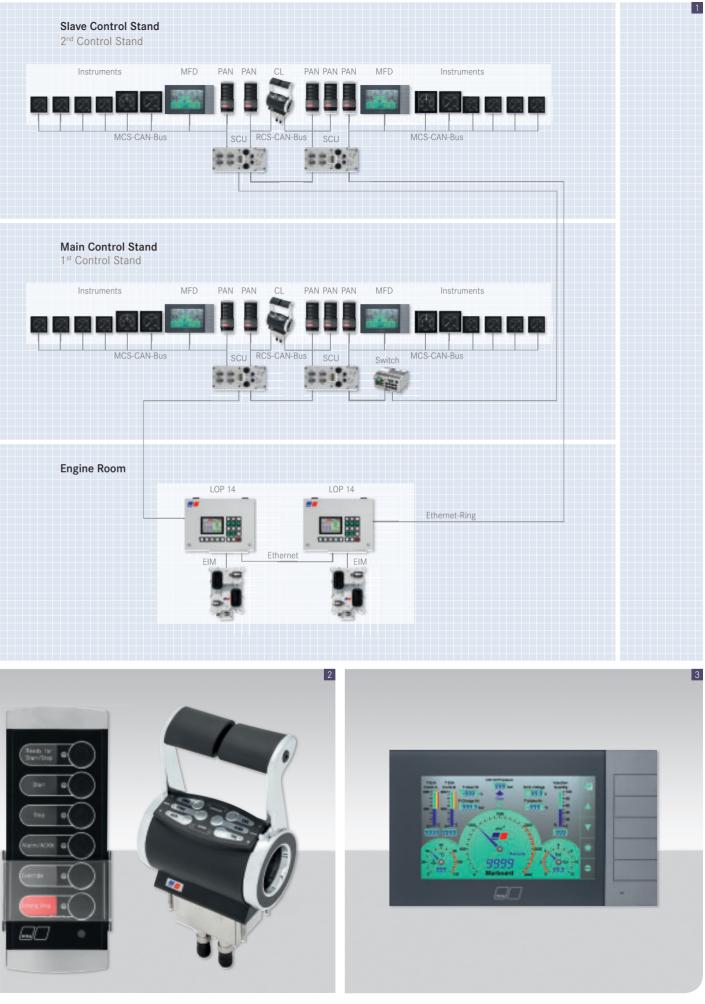
Kev features:

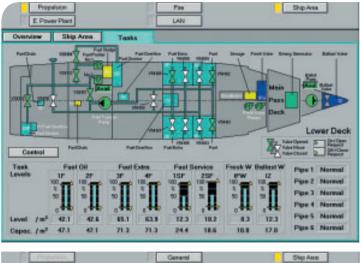
- Type-approved components, such as LOP, control lever, display and instruments
- Designed according to all major classification societies
- Local Operating Panels (LOP) with color display and advanced functionalities like clutch and speed control
- Data communication via redundant Ethernet ring bus

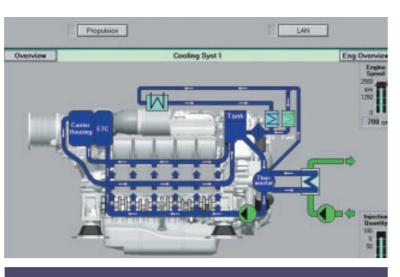
1 Typical scope of supply for BlueVision_Advanced | NewGeneration

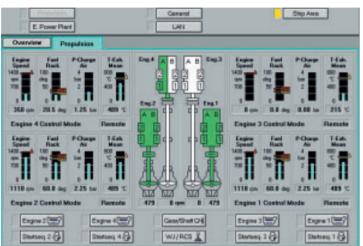
- 2 Operating Panel (PAN) Control Lever (CL)
- 3 Multi Function Display (MFD)



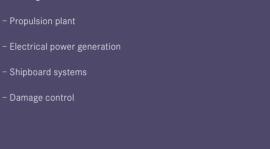


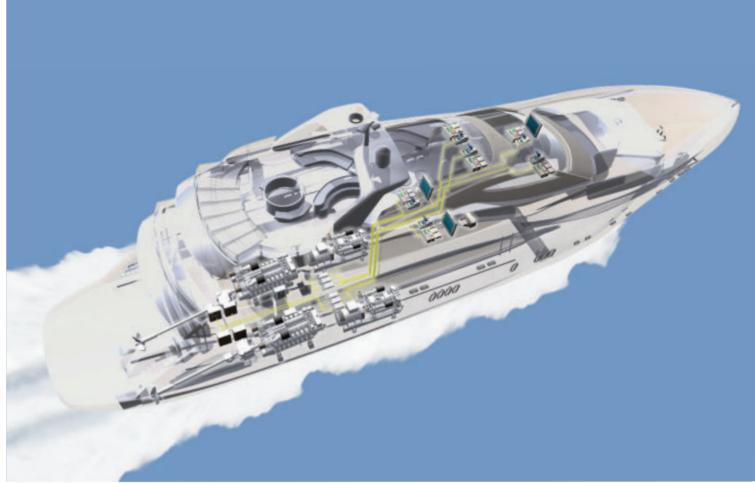












MTU Callosum – Integrated Ship Automation System Your yacht's nervous system.

Integrated. Intelligent. Intuitive.

MTU Callosum bundles many decades of MTU automation experience. The intelligent system optimizes process sequences onboard by professionally collecting and processing data as well as displaying them visually in perfect form.

Four modules. Three clicks.

The integrated ship automation system Callosum has four system modules. A network of sensors, which is set up individually based on the respective yacht, monitors and controls all areas and functions of the ship's electronics. Every action can be carried out with only three mouse clicks from any networked monitor.

Callosum offers an ideal complete solution for yachts, which guarantees that the ship operates reliably and ideally. You have the choice of four modules to build a highly integrated automation system. The system modules can be used individually or combined with one another, based on your individual needs.

Callosum_MC - Integrated Monitoring and Control System

- Is the basis for ideal expansion with additional system modules
- Contains the newest generation of the remote control system and the monitoring and control system
- Monitors the propulsion plant, the onboard power generation and other ship sub-systems
- Modular design and open structure enables to easily integrate additional ship operating systems

Callosum_DC – Damage Control System

 System module for limiting possible damages (e.g. leaks or fires) quickly and automatically, and for ship safety

Callosum_MT - Maintenance Support System

- Based on informaton and reports of Callosum_MC $\,$
- Provides support for the maintenance and upkeep onboard
 Callosum_MT guides the user reliably and intuitively while using support tools, e.g. electronic documentation and 3D videos.

Callosum_TS - Onboard and Land-Based Training System

- System for realistic, intensive training of the crew
- $-% \left({{\rm{Training}}} \right) = {\rm{Training}} \left({{\rm{can}} \right)$ be carried out onboard or on land

MTU ValueCare

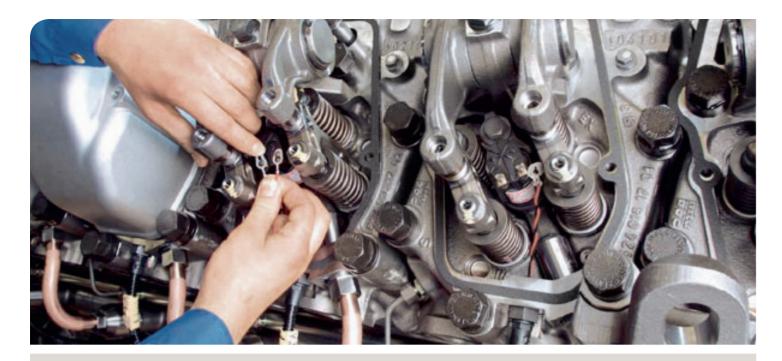
Leave your worries onshore.

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 **Value**Care premium products and services are the perfect complement to your MTU engines and systems.













MTU ValueCare We are with you all the way.

MTU **Value**Care is a diverse portfolio of value-enhancing products and services developed specifically for MTU engines and systems.

MTU ValueCare includes three product lines:

- ValueService: Extensive global service and support to ensure maximum performance and lasting value
- ValueSpares: Genuine spare parts and top-quality consumables designed specifically for MTU engines and systems
- ValueExchange: Remanufactured products engineered with the same high-quality standards as new products

MTU **Value**Care products and services are available anywhere in the world through our extensive network of authorized distributors and service dealers. For more information, please contact your local MTU service center or visit www.mtu-online.com.

ValueService

Cruise confidently.

Your yacht is a substantial investment. You should be able to cruise confidently, enjoying every moment along the way. That confidence starts with reliable MTU engines and systems and continues with ValueService.

Designed to help you get full value and enjoyment from your yacht, ValueService provides training, technical documentation and professional maintenance, warranty and repair solutions around the world, around the clock.

For added confidence, ValueService includes Annual Check and Extended Propulsion Coverage.

Expert assistance. For longer engine life. Annual Check is a yearly professional inspection of your MTU engines and systems by MTU experts, allowing you to identify and address problems early. It ensures effective preventive maintenance, helping you save on repairs or unexpected downtime, optimizing your engine's performance and longevity. The MTU service technicians inspect the maintenance condition and determine whether any additional maintenance or repairs are required. The process includes visual engine inspection; test run and leak check; on-site engine oil and

reporting.

Our technicians will evaluate the effectiveness of your maintenance program and offer expert advice, highlighting any additional preventive maintenance or repair work that may be required. They will also provide information on product developments and options for performing updates. Available for all MTU engine series, Annual Check contract periods are flexible. And convenient service is available worldwide from our MTU service network.

coolant analysis; and diagnostic evaluation and

Cover the unexpected at sea.

For additional peace of mind, Extended Propulsion Coverage (EPC) provides coverage for your propulsion system beyond the standard warranty. You'll feel confident knowing that unexpected repairs are covered, with service performed by personnel from an MTU-authorized service center. And if contractually required, MTU provides a free sea trial. The EPC package, an exclusive service for pleasure craft, is also transferable, which enhances resale value.

During the EPC period, the cost of materials, labor and essential travel are covered if repairs to the propulsion system (MTU supplied standard engines, gearboxes, electronics and other components) become necessary. Repairs with troubleshooting and fault clearance, provision of required components and replacement of failed components are included.

Wherever your boat takes you, expert assistance is always nearby. Covering corrective services, support is available worldwide from our MTU service network. For more information about Extended Propulsion Coverage, please contact your local MTU service center.







- 1 Only MTU can guarantee genuine quality, with **Value**Spares parts and consumables that are designed to work seamlessly with your product.
- 2 ValueExchange remanufactured products offer

ValueSpares

Genuine parts and consumables. For maximum performance.

To ensure peak performance throughout the life of your MTU engines and systems, choose from a full line of ValueSpares genuine parts and top-quality consumables, including filters, oil and coolant. They're designed, tested and approved specifically for MTU engines and systems. Only MTU can guarantee genuine quality, with parts and consumables that are designed to work seamlessly with your product. Superior design and top-quality materials result in maximum power, torque, longevity and low total-cost of operation.

Spare Parts

No matter what MTU engines or systems power your yacht, MTU offers genuine, top quality spare parts to fit your needs. **Value**Spares parts maximize performance, prolong the life of your engine and meet today's strict requirements. We offer everything needed for a turnkey installation.

In addition to engine parts, ValueSpares genuine parts can also maximize the performance of your gears, shafts, propellers, electronic monitoring and controls.

of convenient locations. ValueSpares genuine parts are available worldwide through our MTU service network.

ValueExchange Good as new.

ValueExchange provides a full range of genuine remanufactured MTU products, engineered to ensure robust, reliable performance at a fraction of the cost of new products. Choose from remanufactured parts, or engines and systems that utilize genuine new and remanufactured MTU parts. A rigorous reconditioning process ensures the same high standards of performance, service life and quality as new products-including design and model-related updates.

The **Value**Exchange process is designed to save you time and money, while benefiting the environment through the reuse of existing materials. To help you work more efficiently, ValueExchange products are readily available. And for your convenience, they're offered worldwide from our MTU service network.

Ask your local MTU Service Center for more details about MTU ValueCare products.

You've got our full support, with a large number

Consumables

MTU engines are engineered with the highest standards in the industry. Genuine ValueSpares consumables are built with the same commitment to quality. A full range of filters, oil and coolant is available - from a single source - for your MTU engines and systems. An essential part of your preventive maintenance program. **Value**Spares consumables work in perfect harmony with your engine, maximizing engine performance, prolonging engine life and protecting your investment.

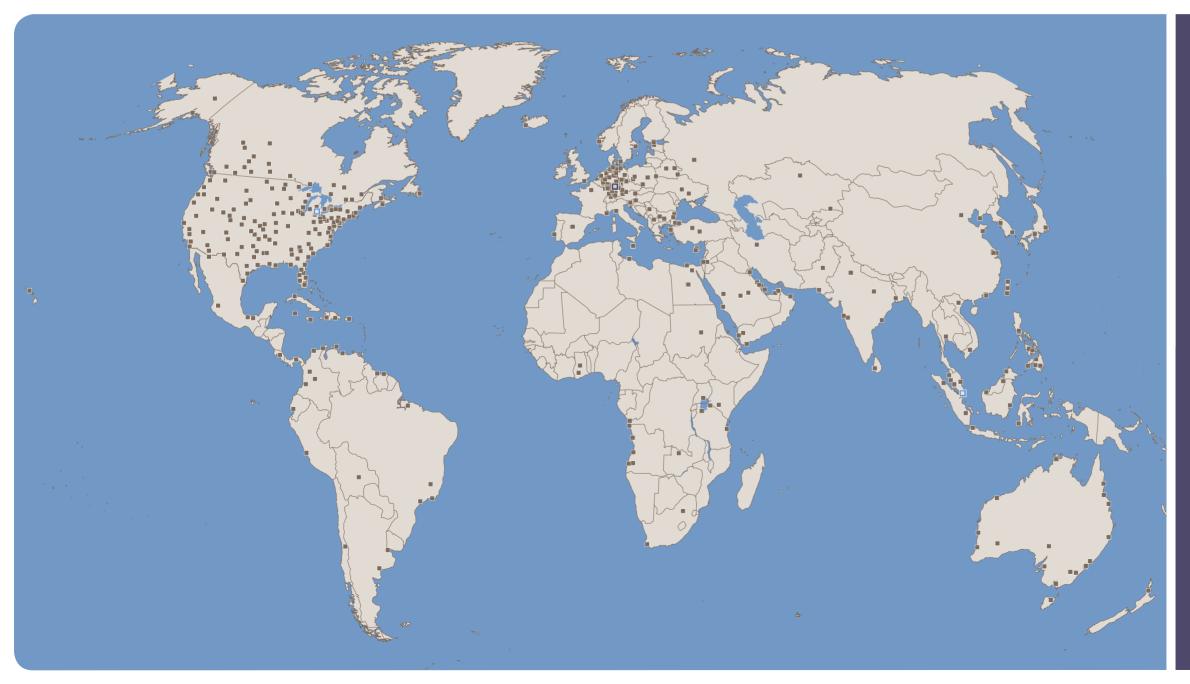
Service Network

Local support. Worldwide.

The reliability and performance of your engines and systems are crucial for your success and competitiveness. We are committed to your support. Our convenient global service network provides you this assurance.

Whenever and wherever you need expert support, MTU specialists are available. This continuous and long-term care ensures high availability, dependability and efficiency throughout the lifecycle of your engines and systems.

To find your local MTU distributor, visit www.mtu-online.com.



VII

Local support. Worldwide. We ensure that you receive individualized support from our global network of more than 1,200 service centers – anywhere, anytime.

Global Headquarters
 Regional Headquarters
 Sales and Customer Service Center

Quality and Certifications

MTU quality is something you can measure – and feel.

We are uncompromising when it comes to quality. True to our corporate philosophy of total quality management, we assure the quality of our products throughout the entire process of development and production. Every one of our staff is responsible in this respect – and thinks and acts accordingly.







Certified quality

Tognum with its core company MTU Friedrichshafen GmbH satisfies the international requirements of ISO 9001:2008 and 14001:2009. We conduct acceptance testing, including type tests, according to the rules and regulations of all the relevant classification bodies (e.g. ABS, BV, CCS, DNV, GL, JG, KRS, LR, NKK, RINA). All MTU electronics products bear the CE mark.

Quality you can feel

To us, quality is measured by more than just a certificate. We measure it by the degree of our customers' satisfaction, and by the number of years they continue to place their trust in us. Quality of that kind cannot be achieved with average objectives. You rightly expect everything of us – and we offer you even more. More reliability, more innovation, more specialization, more safety. If you share these aspirations, then together we will achieve a lot: a quality partnership.

MTU Friedrichshafen GmbH | MTU Asia Pte Ltd | MTU America Inc. Rolls-Royce Power Systems Companies

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