

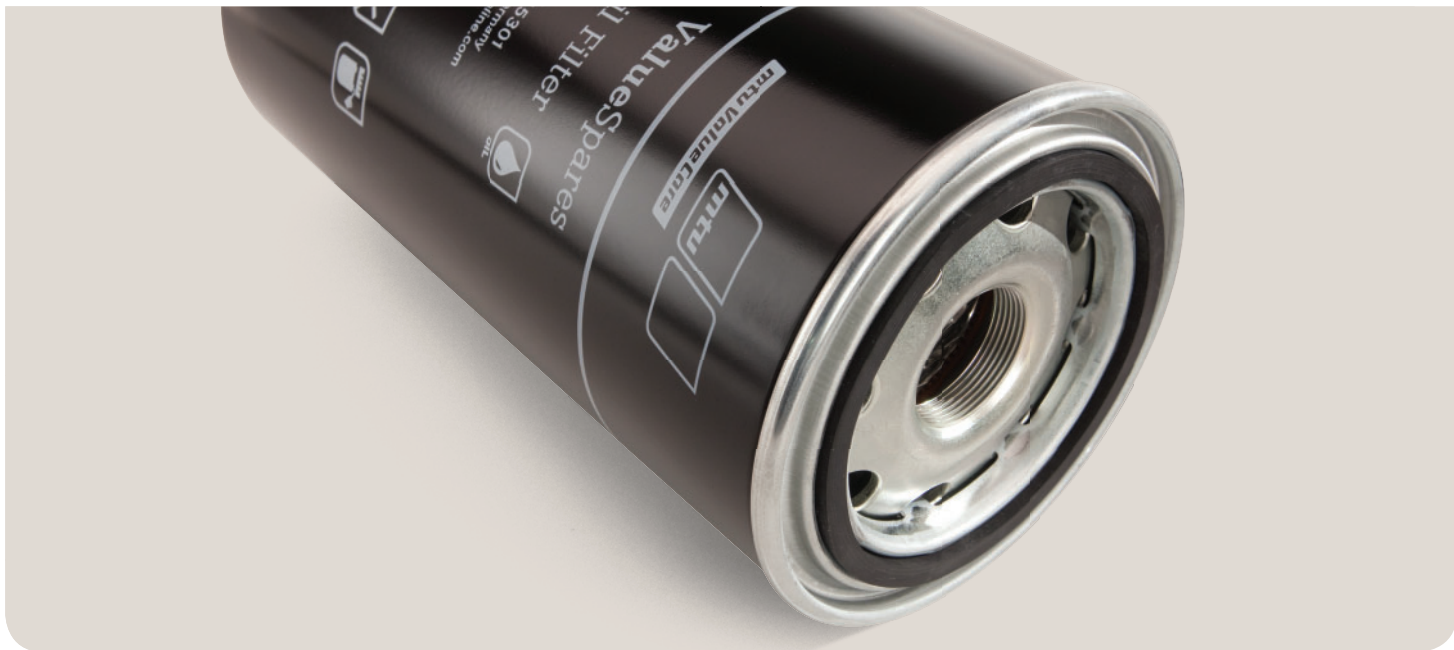


ValueSpare Consumables

For maximum performance
and longevity.

Valid for Europe, Middle East, Africa





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A customer-oriented technological leader.

MTU supplies its customers with technologically-advanced 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 drive solutions, MTU stands for the highest level of technological expertise.

2 Passion

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

3 Partnership

MTU is a reliable and trend-setting partner that 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 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.

Parts and Service

MTU ValueCare. Keep going.

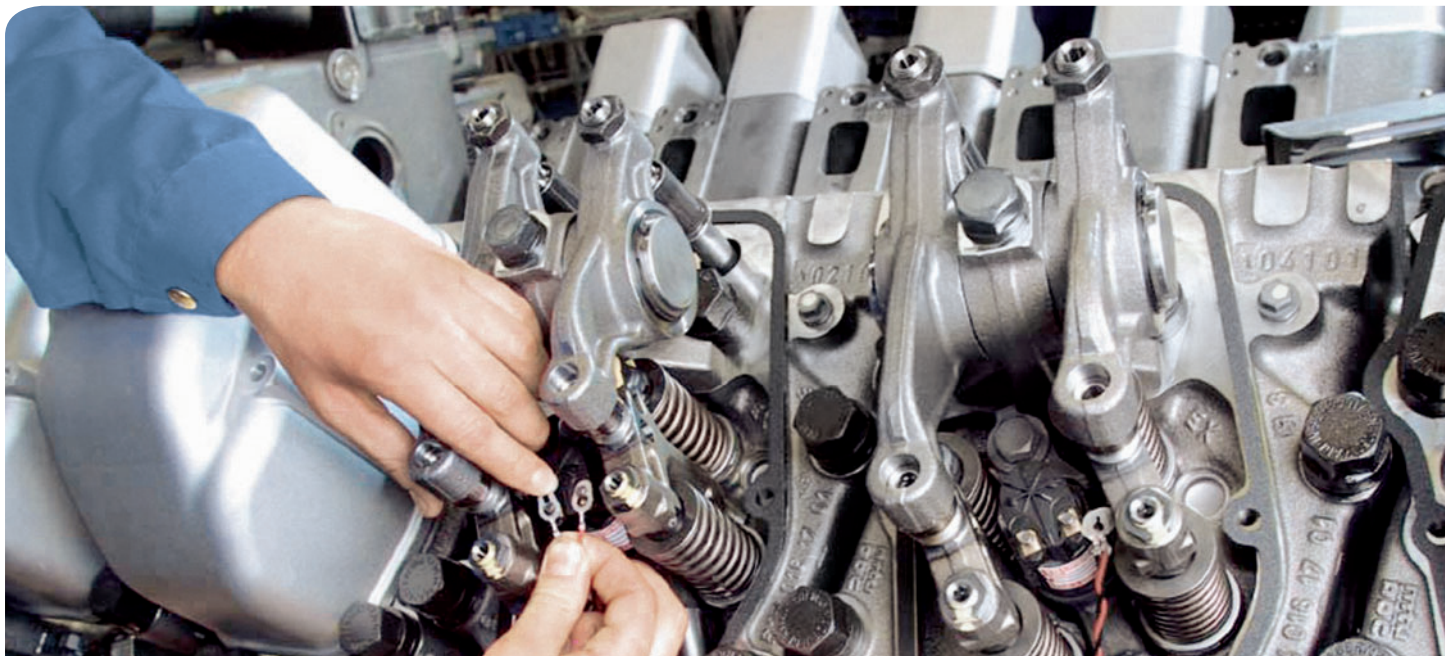
MTU has always had a strong commitment to its customers. With MTU **ValueCare**, this focus extends beyond the sale of our engines. From spare parts to engine overhauls to transportable service units, MTU offers a full range of support to help you get the most from your equipment.

Designed for maximum performance, uptime and value, MTU **ValueCare** is a diverse portfolio of products and services.

MTU ValueCare includes three product lines:

- **ValueService:**
Extensive global service and support to help you protect your investment
- **ValueSpares:**
Genuine spare parts and top-quality consumables designed specifically for MTU engines and systems
- **ValueExchange:**
Remanufactured engines and service parts engineered with the same high-quality standards as new products

MTU **ValueCare** 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.



The only consumables designed specifically for your MTU engine.

Your engine faces difficult conditions on the job. The challenges are many: adverse conditions for oil on cold starts, extreme pressure peaks with frequent restarts, fuel entering the oil circuit during short journeys or high temperatures from high speed driving. Filters, oil and coolant play an important role in protecting the engine. Make sure you choose the ideal solution—genuine **ValueSpares** 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, **ValueSpares** consumables work in perfect harmony with your engine, maximizing engine performance, prolonging engine life and protecting your investment.

Only MTU can guarantee consumables that are custom designed, tested and approved specifically for MTU engines and systems. Other consumables which have not been tested by MTU can cause significant damage during an MTU engine's lifecycle. **ValueSpares** consumables must pass rigorous testing to qualify for use in MTU engines. Superior design and top-quality materials result in maximum power, torque, longevity and low total-cost of operation. As a result, **ValueSpares** consumables enhance your peace of mind, increase uptime and lower maintenance costs.





Filters

Clean engines. Pure performance.

We offer a full line of filters formulated for specific MTU engines to ensure reliable, long-life engine performance. Our product line includes engine oil, coolant, air, pre-fuel and fuel filters. MTU filters are robust and resilient – built to remove contaminants before they reach critical areas of the engine and cause premature wear and reduce component life. Filter media are engineered to resist premature plugging while providing reliable filtration at the specified particle size. They're designed to resist collapse, even under severe duty.

The unique features of MTU filters provide reliable performance throughout the service interval. Reliability is not guaranteed with non-genuine products. Effective filtration can only occur with a system completely equipped with genuine **ValueSpares** filters. If any oil, fuel or coolant filter is a non-genuine MTU filter, it may shorten the engine's lifecycle.

MTU branded filters can provide almost perfect particles separation and retain even the smallest particles of dirt. By limiting the concentration of solid contaminants in the lube oil, changes in consistency and viscosity of the engine oil are reduced. This ensures engine oil quality, which maximizes engine power and operating efficiency. Since **ValueSpares** filters work so effectively, MTU recommends changing them according to maintenance instructions.

Our most common product type is the spin-on oil filter. In this product, the dirty oil is pumped to the filter, where it is passed through a special filter media with pleat designed to resist high pressure differentials and chemical substances in the oil. Inferior quality filters do not have stable pleat geometry and have a lower dirt capacity, leaving smaller particles in the oil which may increase engine wear.

Filters

Why is it so important to use genuine ValueSpares filters?

As the only filters approved by MTU for use in MTU engines, **ValueSpares** filters are tested to provide high quality filtration. Every component is designed and engineered to meet MTU’s legendary standards.

Excellent filtration of harmful particles

High quality filter insert/elements work accurately over the entire duration of the oil change interval and deliver long service life. Consisting of folded filter paper, its geometry and surface condition provides extremely high strength and dirt absorption capacity. Its folded design ensures a higher filter surface. Therefore, pressure loss is lower at the same separation rate. The paper elements are impregnated and thus protected from water and tensides to prevent premature deterioration. The impregnation also makes the material temperature resistant.

Oil leak prevention

The seal retainer prevents leaks that can lead to engine fire or harm the environment.

Efficiency under differential pressures

The support tube maximizes filter operation by ensuring strength and internal leak at the filter element when differential pressures occur.

Safe operation

A corrosion-protected housing with high crushing strength, offers high stability during operation, installation and removal over the entire service life of the filter.

Continuous oil supply

When the filter is clogged or at cold starts, the filter bypass valve maintains continuous oil supply to the engine. A continuous oil supply is very important because it prevents unwanted dry friction and possible engine damage as a result.

Strainer protection of the bypass valve

Coarse filtration during bypass mode provides additional safety against particle ingress into the oil circuit.

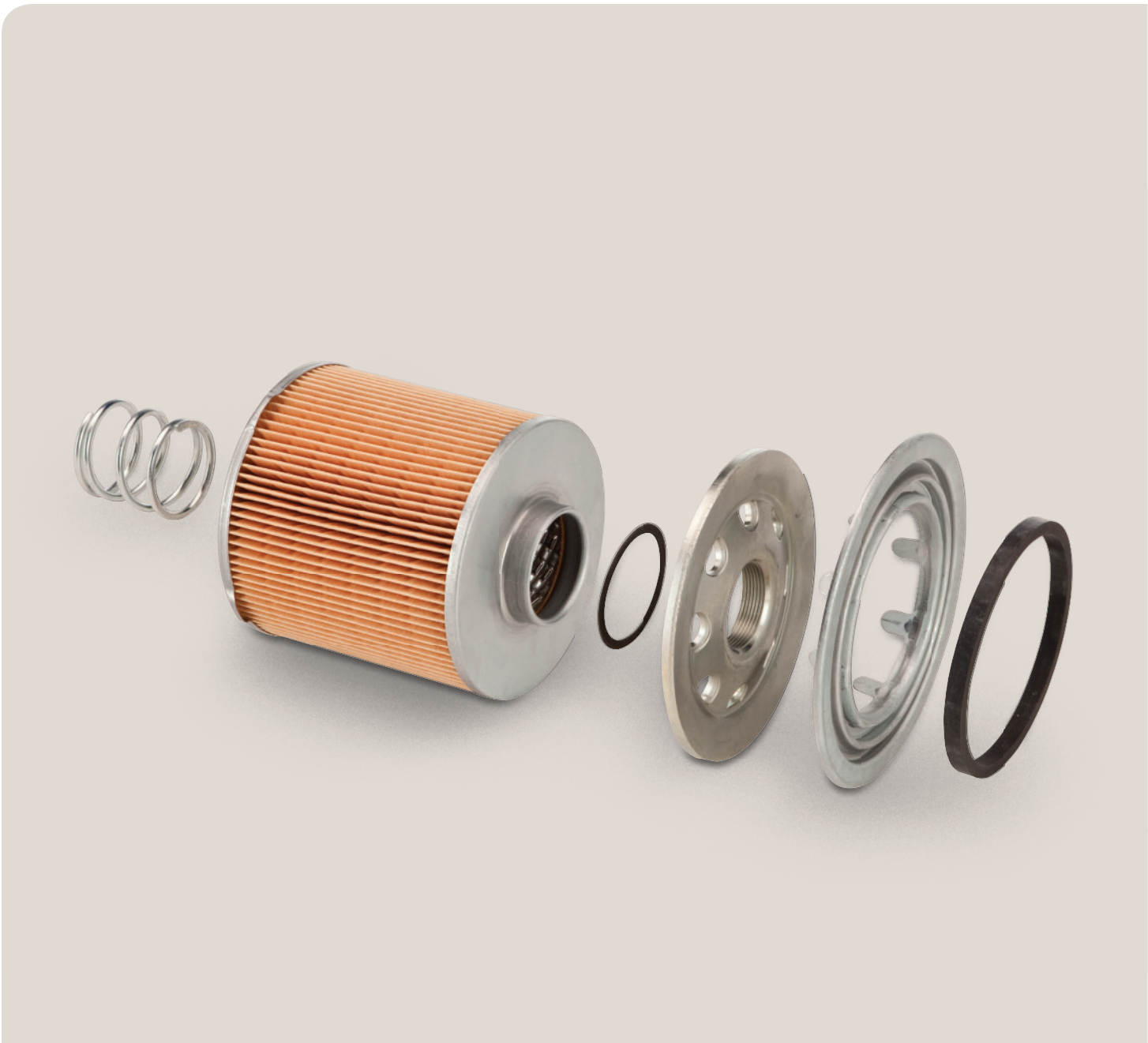
Genuine ValueSpares Filter

- **ValueSpares** filters can provide almost perfect particle separation and retain even the smallest particles of dirt.
- Original filters remain effective throughout the entire service interval. However, with the constant buildup of dirt and chemical aging of the oil, it is essential to change both the oil and the oil filter together on a regular basis.
- Housing: High quality engineering features high operating pressure with extreme peaks and standard pressure resistance in the casing and other components.
- Bypass valve: Ensures oil supply in exceptional circumstances. The bypass is closed during normal operating conditions. When the filter is heavily contained or during cold conditions, the bypass conveys oil directly past the filter media to ensure adequate engine lubrication.



Non-Genuine Filters

- Inferior quality filters have instable pleat geometry and lower dirt capacity. This causes lower change interval of the oil filter.
- Poor quality filters can also tear easily when exposed to high pressure differentials. When unfiltered oil enters the oil circuit, it can quickly cause substantial damage.
- Housing: Inferior sealing materials may cause oil leaks between the filter housing and the engine block. Inadequate surface protection when sprayed with water can cause corrosion, which can also cause oil leaks. Undersized housing or inferior quality increases risk of bursting and major engine damage.
- Bypass valve: If valve fails to open in time, the engine may run without lubrication, which quickly leads to serious engine damage. If the bypass valve is broken or inhibited, a malfunction highly impacts engine wear, due to the constant circulation of unfiltered oil.



- 1 **Elastomer seals**
Chemically resistant
- 2 **Metal housing**
Non-corrosive and pressure stable up to 20 bar
- 3 **Filter elements**
Folded, impregnated and embossed
- 4 **Support sleeve**
Spirally slotted
- 5 **Bypass valve**
For cold starts and in case of clogged filter elements
- 6 **Upper and lower caps**
For filter stability

Oils

Keep everything running smoothly.

Engine oils play a vital role in protecting your investment in MTU engines and systems. As a result of intensive research, MTU's full line of oils is specially formulated for MTU engines.

ValueSpares oils are designed to maximize performance by protecting your engine from harmful wear, corrosion and particles. The oils provide outstanding piston cleanliness, even under high thermal loading, which ensures maximum engine efficiency and reduced maintenance. They also feature exceptional oil consumption control and thermal stability, maintaining specified viscosity and reducing shear in severe applications.





Oils

Why is the right oil so important for your MTU engine?

Approved by MTU for use in MTU engines, **ValueSpares** oil ensures optimum performance.

Prevents wear

ValueSpares oils lubricate an engine’s moving parts, including piston, crank and cam shaft, to prevent wear. Lubricating oil creates a separating film between surfaces, minimizing direct contact between moving parts and decreasing abrasion.

Fights corrosion

ValueSpares oils contain special anticorrosive additives, defending the engine from grid and surface breakup.

Heat dissipation

Moving engine parts cause friction which wastes otherwise useful power by converting energy to heat. **ValueSpares** oils help dissipate heat and together with the coolant, cools the engine and prevents overheating.

Evacuation of particles

A clean engine is an efficient engine. However, working conditions can produce abrasive microscopic particles and soot. High quality additives in our oil (dispersants and detergents) collect it. Then, it is circulated through an oil filter to remove harmful particles.

Technical Information

Change intervals	<ul style="list-style-type: none">• Without oil centrifuge: 500 working hours• With oil centrifuge or by pass oil filter: 1000 working hours
Storage stability	<ul style="list-style-type: none">• Shelf-life of at least three years when stored in unopened, original containers between +5 and +40°C. Containers must not be exposed to solar radiation, freezing or rain.
Available sizes	<ul style="list-style-type: none">• 20 liters and 210 liters

For further details please refer to the respective fluids and lubricants specification.

Protect your investment.

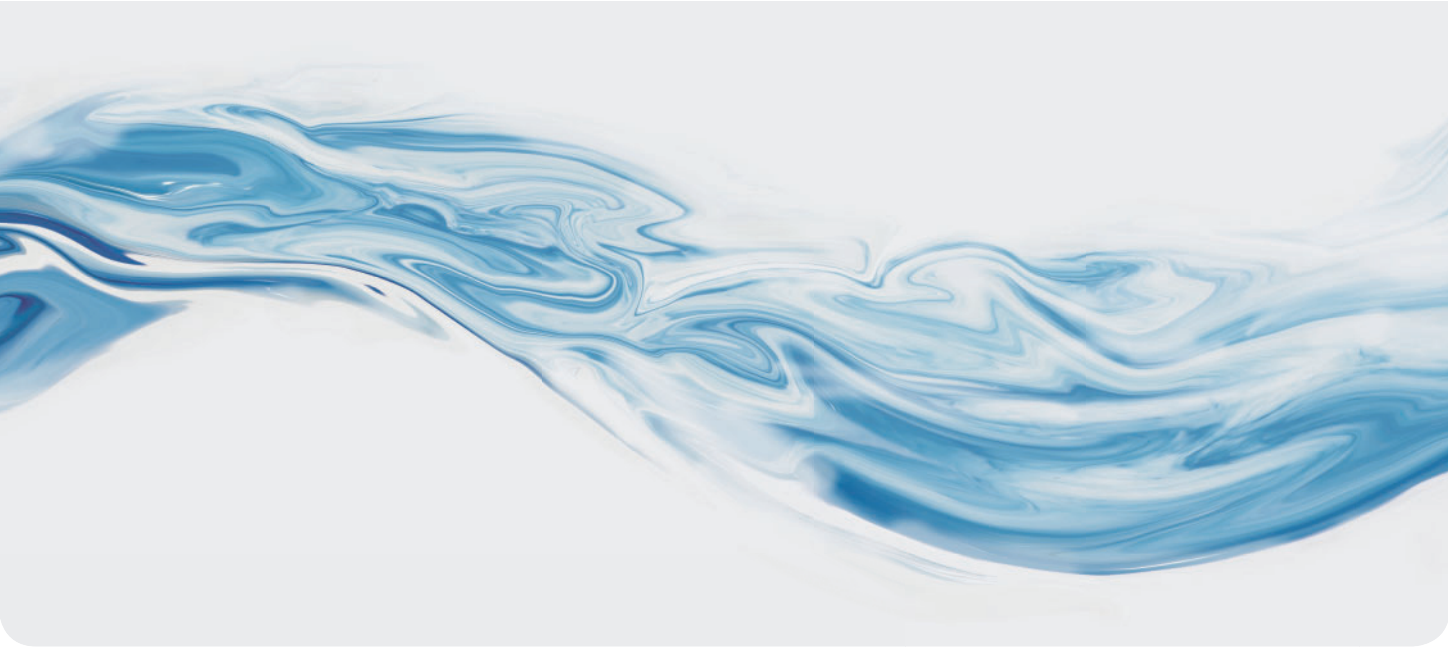
As a result of intensive research, **ValueSpares** coolants are specially designed for use in MTU engines to protect your equipment. In cold environments, they offer a low freezing point, protecting engines from damage. They also elevate the boiling point during hot conditions and severe duty.

ValueSpares coolants protect the cooling system from all kinds of corrosion. Coolant produces a durable protective layer that insulates cylinder liners and water pumps from cavitation (pitting) damage. With exceptional thermal transfer characteristics, **ValueSpares** coolants feature high temperature stability, which prevents overheating.

For further protection, the coolants inhibit the formation of corrosion, which can lead to leaks and other costly parts damage.

	Coolant AH 100 Antifreeze Concentrate	Coolant CS 100 Corrosion Inhibitor Concentrate
Storage stability	Shelf life of at least three years when stored in original, sealed (unopened), air-tight containers at temperatures of up to 30°C.	Shelf life of at least three years when stored in original, sealed (unopened), air-tight containers at temperatures of up to 30°C.
Water mixture	MTU recommends coolant AH 100/water mixing ratios between 35/65 and 50/50 percent. Freezing point approximately - 25 °C (35/65 mixture) / - 40°C (50/50 mixture)	MTU recommends a mix of 10% CS 100 to 90% water.
Change interval	9000 hours or 5 years, whichever comes first.	6000 hours or 2 years, whichever comes first.
Available sizes	20 liters and 210 liters	20 liters and 210 liters
Appearance	Blue	Green

For detailed information about our MTU coolants and how to use them correctly, please download the latest Fluids and Lubricants Specifications direct from our website at mtu-online.com or contact your local MTU Service Center and consult our specialists.



Coolants

Why is the right coolant so important for your MTU engine?

Approved by MTU for use in MTU engines, **ValueSpares** coolants are the perfect choice to optimize performance. Our MTU coolant antifreeze concentrate AH 100 and corrosion inhibitor concentrate CS 100 are perfectly formulated to provide maximum protection for your cooling system.

Heat dissipation

Cooling fluid (a mixture of coolant concentrate and water) absorbs and removes thermal energy generated during combustion. With outstanding thermal transfer characteristics, **ValueSpares** coolants protect the engine block, cylinder heads and other components against overheating and engine damage, which can result in avoidable repair costs and downtime.

Corrosion prevention

Without MTU coolant, the oxygen in the water can lead to a chemical reaction with the metallic components in the cooling system during engine operation. To avoid this problem and prevent corrosion, MTU coolants contain suitable additives which form a protective film on engine components.

Cavitation protection

Cavitation involves the formation and break-up of vapor bubbles in engine coolant cavities such as water pumps and cylinder liners. When vapor bubbles implode, they cause a crater-like material erosion known as cavitation. MTU coolants guard against this problem, forming a protective film on metal components. The film acts as a shield that absorbs energy from imploding vapor bubbles.

Specially formulated antifreeze

Since water expands when it freezes, using water soluble corrosion inhibitors in the cooling system of a combustion engine can cause extensive damage. MTU Antifreeze Concentrate – AH 100 – is specially formulated for use at extremely low temperatures in cold regions, as the glycol constituent in the concentrate enables the freezing point of the coolant to be lowered to suitable levels, depending on mixing ratios.

Environmentally friendly

ValueSpares coolants are free from nitrites, amines and phosphates.



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.



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

