

PORTFOLIO

MARINE X OFFSHORE SOLUTION

A small, detailed image of a ship, possibly a tugboat or a small cargo vessel, moving across the water. The ship is white with a red and blue stripe along its side. It is leaving a white wake behind it. The water is a deep blue color.

Eco Solution
Automation Solution
Power Solution
MRO Solution

Beginning of the Great Voyage

S&SYS has been established as a spin off the Machinery & Electric system team of the Samsung Heavy Industries in 2017.

Based on technologies and knowhow accumulated over 30 years in the shipbuilding and marine field, we have developed key equipment such as Ballast Water Management System(BWMS), Ship Automation System, Switchboard, Fuel Gas Supply System(FGSS) and Low-flashpoint Fuel Supply System(LFSS) to clients all over the world.



Technological knowhow accumulated over 30 years from Samsung Heavy Industries



With diverse clients in 40 countries worldwide



We have provided optimum solutions to over 310 clients



Global Network



A/S Network



Sales Agency



ASIA

- SOUTH KOREA
- CHINA
- INDIA
- JAPAN
- SINGAPORE
- TAIWAN
- THAILAND

AMERICA

- PANAMA
- BRAZIL
- USA

MIDDLE EAST

- UAE

OCEANIA

- AUSTRALIA

EUROPE & AFRICA

- GERMANY
- GREECE
- ITALY
- NETHERLANDS
- SOUTH AFRICA
- TURKEY
- U.K (UNITED KINGDOM)

BWMS

Purimar™

During ballast water management, the Purimar™ management process consists of two main stages: mechanical separation and disinfection. When discharging ballast water, the neutralization unit reduces the concentration of Total Residual Oxidants (TRO).

Eco-Purimar™

The Eco-Purimar™ system is designed based on Micro Bubble technology to meet the IMO and USCG requirements for ballast water management systems.

During the ballasting process, treatment is carried out in two stages. The first stage involves hydrodynamic cavitation through the Bubble Burst Pipe (BBP), where rapid changes in pressure and temperature effectively destroy organisms and bacteria present in the ballast water. The second stage uses the Bubble Burst Filter (BBF, 40 μm precision) for mechanical separation, removing remaining particles, sediments, and microorganisms to ensure complete treatment efficiency.



Space-saving design



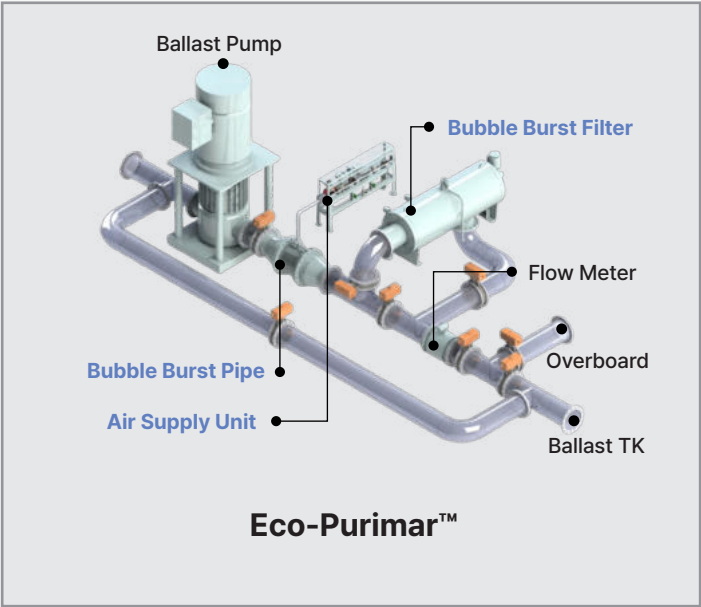
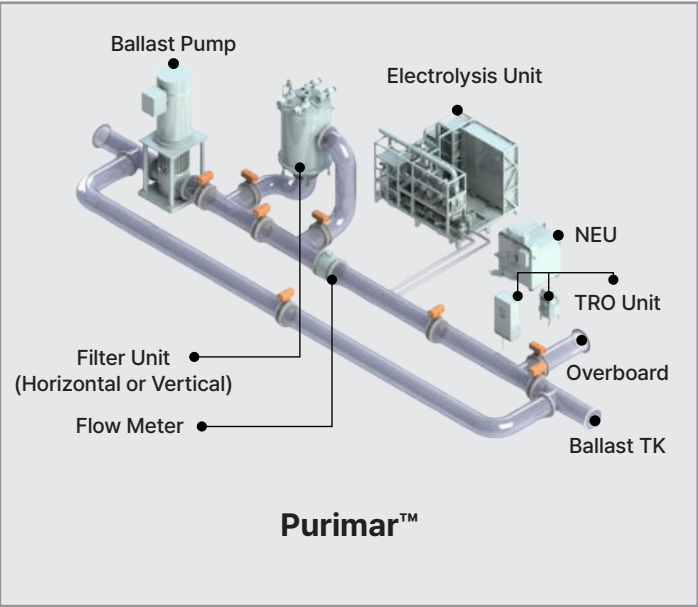
Non-toxic byproducts



Anti-corrosion & Coating protection



Cost saving



FGSS

Fuel Gas Supply System (PURIGAS™- LN)

S&SYS proudly presents PURIGAS™, an innovative full package solution for LNG fuel supply systems. Our LNG FGSS has been successfully designed, tested and delivered to customers, ensuring complete satisfaction.

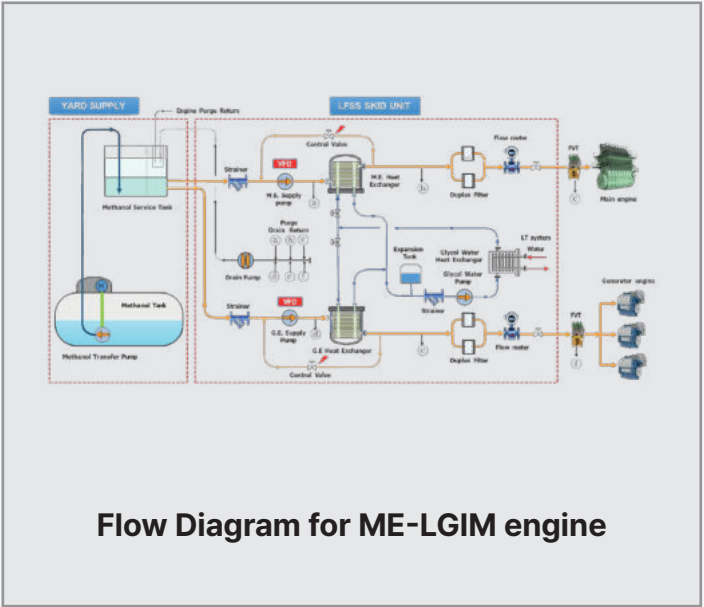
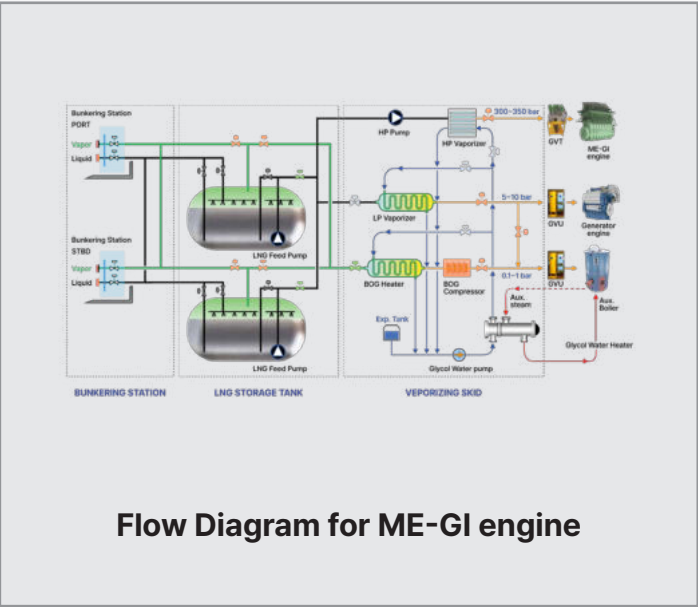
We offer fully optimized LNG Fuel Gas Supply Systems (FGSS) from initial concept through final commissioning. Our turnkey solutions are compatible with all major engine platforms—ME-GI, X-DF, and DFDE—ensuring seamless integration and reliable performance.

LFSS

Low-flashpoint Fuel Supply System (PURIGAS™-ME)

PURIGAS™-LFSS (Low-flashpoint Fuel Supply System) has been developed by S&SYS based on its accumulated expertise in methanol-related equipment and engineering technologies.

Leveraging S&SYS's proven technology and know-how, PURIGAS™-LFSS provides customers with the most cost-effective and reliable packaged system for ME-LGIM engines, achieving low CAPEX (capital expenditure) and OPEX (operating expenditure).



Automation Solution

SSAS-Master

(IAS/ICMS/AMS)

SSAS-Master delivers reliable, robust, and proven performance, meeting the highest customer expectations for efficiency, stability and ease of maintenance.

Built on an innovative redundant architecture that extends from the top-level workstation to the lowest-level I/O card, it ensures continuous monitoring and control even in the event of minor system faults.

This advanced system is fully compatible with all types of commercial vessels and optimized for dual-fuel propulsion ships — including LNG, LPG, and Methanol-powered vessels — as well as LNG carriers.

SSAS-Master X

(IAS/ICMS/AMS)

SSAS-Master X is a next-generation integrated control solution built upon over 30 years of expertise in marine automation. With its high-performance processing and scalable I/O architecture, it delivers reliable, precise control of essential onboard systems including generators, pumps, cargo handling, and navigation equipment.

Designed for modern vessels, SSAS-Master X enhances operational efficiency through an intuitive HMI, multi-monitoring interface and customized reporting tools.

Reinforced with advanced cybersecurity and remote maintenance (RMS) capabilities, it ensures the safety, reliability and long-term performance that today’s smart ships demand.



SSAS-Master X Key Features

- Automatic or manual theme switching anytime
- Customizable layouts across multiple screens
- Tab management and up to four split views for multitasking
- Visual flow-based interface for better clarity and usability



Gas Control

(FGSS, LFSS, Regasification and Reliquefaction)

SSAS-Master / SSAS-Master X delivers robust and proven control performance at a competitive price, built on decades of expertise in control systems for Fuel Gas Supply Systems (FGSS), Low-flashpoint Fuel Supply Systems (LFSS), and vaporization and reliquefaction systems.

Designed for flexibility, SSAS-Master supports both high-pressure and low-pressure FGSS configurations with or without compressors. Leveraging in-depth experience in both direct-type and indirect-type vaporization control, it provides optimized solutions for every type of FGSS, LFSS and vaporization/reliquefaction system.

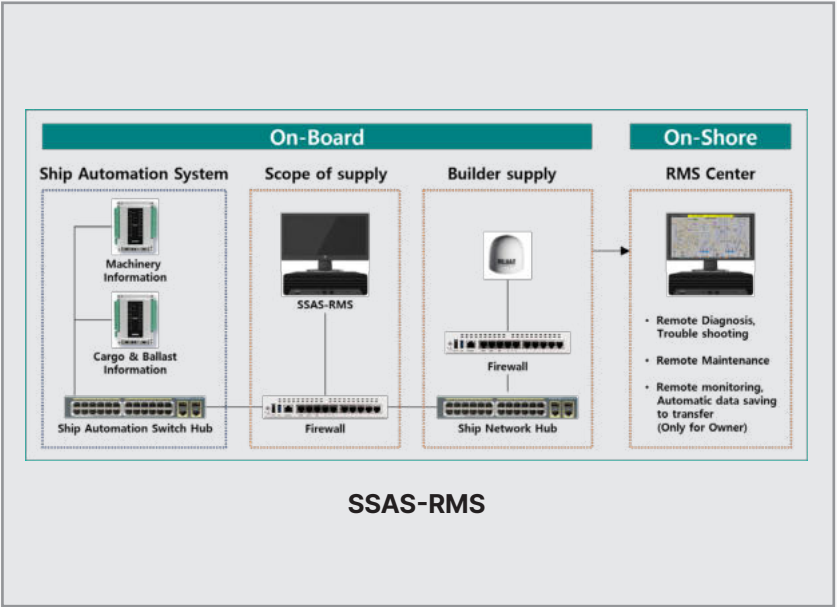
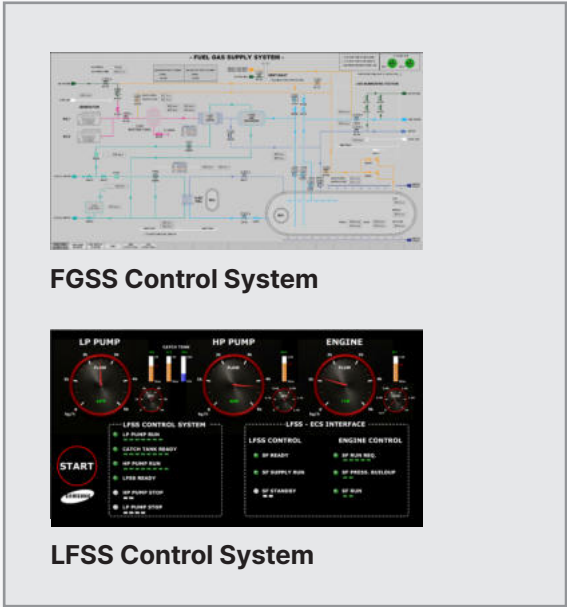
SSAS-RMS

Remote Monitoring System

SSAS-RMS is an advanced remote monitoring and maintenance platform that enables real-time transmission and management of vessel data from shore.

With integrated big data analytics, it empowers shipowners and operators to optimize vessel performance, efficiency and safety through data-driven insights.

Its Remote Maintenance (RMS) capability allows service engineers to deliver instant and effective technical support without boarding, ensuring continuous operation with zero downtime.



Power Solution

HV

High Voltage Switchboard

The High Voltage Switchboard is a metal-clad power distribution system designed for marine and offshore applications, fully compliant with IEC 62271-200 and certified by major classification societies (ABS, BV, DNV, LR, KR, etc.).

It features arc-fault protection, mechanical interlocks, intelligent monitoring devices, and a front-access design for easy maintenance and efficient operation.

With a rated capacity of up to AC 12kV / 2000A, it ensures stable and reliable power control even under extreme vibration, temperature, and humidity conditions — making it an ideal solution for LNG carriers, shuttle tankers, oil rigs, and offshore plants.

LV

Low Voltage Switchboard

The Low Voltage Switchboard (SSLV/SSLV-1S) provides a full range of low-voltage switchboards for marine power systems, based on advanced technology and extensive experience.

The low-voltage switchboard is designed and developed to be optimized for marine environments, offering sufficient working space while maintaining a compact design to save installation space.



High Voltage Switchboard

- Fully Type Approved
- Completed independent Arc-Fault test
- Tested in accordance with IEC 62271-200 standards
- Applied Metal-Clad structure (LSC2B and PM type)



Low Voltage Switchboard

- Fully enclosed, front-access, floor-mounted multi-cubicle type
- Compact low-voltage switchboard for efficient power distribution
- Tested in accordance with IEC 61439 standards
- Proven high-quality marine service worldwide



Industrial Power System

Switchgear / MCC / Distribution Panel

The land-based switchboard has secured stability and reliability through international standard tests and certifications.

With a metal-clad structure, arc-fault prevention, and seismic-resistant design, it ensures safe power supply in any industrial environment.

Its withdrawable structure and interlock functions provide easy maintenance and enhanced operator safety, making it an optimized power management solution.

EP System

Electric Propulsion System

EPS Eco Solution combines the Electric Propulsion System (EPS) with the Fuel Gas Supply System (FGSS) to enable eco-friendly and efficient vessel operation.

It can be applied to large vessels as well as small and medium-sized coastal ships, and is available in various configurations through collaboration with partner companies.



Eco-friendliness



Energy efficiency



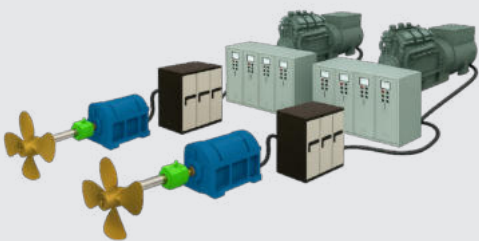
Stable power supply



Reduced operating costs



Land-based Switchgear



EP System

MRO Solution

MRO Solution

Integrated Maintenance, Repair & Overhaul System

S&SYS's MRO Solution is a high-value, integrated maintenance business that covers the entire lifecycle of vessel equipment and systems.

From newbuild to operation, retrofit, and decommissioning, it ensures stable system performance and provides a sustainable, long-term revenue model.

By managing the extensive MRO phase that occupies most of a vessel's lifecycle, S&SYS strengthens customer lock-in and builds lasting partnerships.

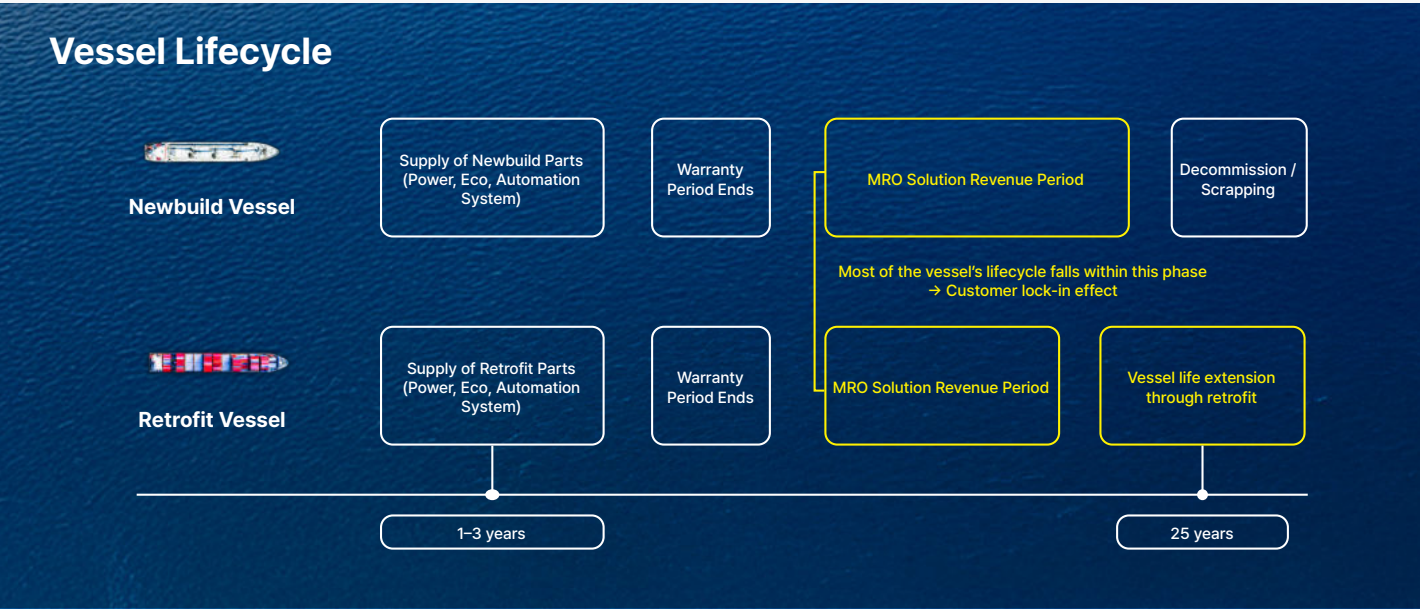
RMS Service

Remote Monitoring & Real-time Diagnosis

RMS Service is a real-time monitoring and remote diagnostic system that continuously checks the condition of key onboard equipment and delivers instant feedback.

Through remote maintenance, it minimizes downtime and maximizes efficiency in field engineer support and labor costs.

In addition, big data-based anomaly detection technology enables proactive response before any issues occur, ensuring safe and reliable vessel operation.



AI Maintenance

AI-driven Predictive Maintenance

S&SYS's proprietary A/S platform automatically provides equipment manuals, instructional videos, and customized maintenance solutions.

Using AI algorithms, the system analyzes accumulated operational data to predict maintenance schedules and part replacement cycles, automatically assigning the most suitable A/S agent.

This intelligent system enhances preventive maintenance efficiency and significantly reduces unnecessary maintenance costs.

Global Service

Worldwide RMS Network & Crew Training

S&SYS operates A/S and logistics hubs at major ports around the world, ensuring fast and reliable maintenance services anywhere at sea.

Crew training programs and maintenance manuals are also provided to empower operators with hands-on troubleshooting capabilities.

Through this global RMS network, S&SYS guarantees consistent, high-quality maintenance services and seamless technical support across all regions.

RMS Service

1

AI Service

2

Global Service

3



Beyond Technology, Toward a Sustainable Tomorrow.

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