

WINKONG SERVICE, EMBRACE THE WORLD.

WinKong Marine Engineering Co., Ltd.

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WeChat Account



Customer Service



WINKONG MARINE
ENGINEERING CO., LTD.

Maritime Service Excellence Provider of Integrated Solutions

WINKONG

CONTENTS

01



Enterprise

- About WinKong Marine
- Enterprise Development History
- Core Competitiveness
- Global Service Network

02



Services and Products

- Engineering & Technical Service
- Supply Chain Management
- GMScare Laboratory Testing
- Ship Digitalization Products and Solutions
- Green Decarbonization Solutions of Full Life Cycle
- Intelligent Training



Enterprise

About WinKong Marine

WinKong Marine Engineering Co., Ltd.(WinKong Marine) was established in 2005, an enterprise of platformized service and full-life cycle service that provides specialized, refined, special and new engineering and technical service, committed to becoming a maritime service technology leader, standard setter, and value creator in the era of digital economy. With headquarter in Qingdao, WinKong Marine set up branch offices and workshops in Nantong, Shanghai, Ningbo, Shenzhen, Singapore and Panama. There are around 500 employees and over 295 of them are engineers and technicians. WinKong Marine could offer over 200 technical services and over 82,000 products for ships, provide repair service around 5,000 vessels annually, and get 30+ authorizations from equipment makers.



MISSION

Maritime Service Excellence Provider of Integrated Solutions



VISION

Committed to becoming a Technology Leader, Standard Setter and Value Creator for global marine service in the digital economy era.



COMMERCIAL VALUES

- Customer-oriented: Outstanding customer experience with touchpoints and datapoints.
- Employee-oriented: Reward craftsmen and elites, wellbeing together.
- Partner-oriented: Loyalty and win-win together.



2005^{Year}

Established in



20^{Years}

Dedicated to
maritime service



Service categories
200+



Products SKU
82,000+



Global branch offices
7



Customers
4,500+



Vessel projects
5,000 Vessel project/Year



Workshops
6



Engineers and R&D personnel
295+



Authorized & Contracted
30+



Global signed suppliers
500+

Enterprises Development History

2005-2007 INITIAL STAGE

- 2005**
 - WinKong Marine Engineering Co., Ltd. was founded
- 2006**
 - WinKong entered into an era of independent operation
 - Certified by CCS for underway service
- 2007**
 - Certified by BVQI ISO9001:2000
 - Qingdao RuHai HuiShang Trading Co., Ltd was founded

2008-2011 DIVERSIFIED STAGE

- 2008**
 - Authorized as sales agent & technical service agent of ESAB
- 2009**
 - Authorized as BWMS sales agent of Techcross
 - Achieved diversified development from a single automation business to a marine engineering business
- 2010**
 - Established a new business R&D center 2011
 - WinKong Marine (Nantong) Co., Ltd. Was founded
 - Obtained training certificate of Hudong Heavy Machinery ME&RT-FLEX
 - Put forward the "WinKong dream"
- 2011**
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2012-2018 GLOBALIZATION STAGE

- 2012**
 - Visited engine builders such as Hyundai, Doosan, STX in South Korea
 - Developed HongKong & Taiwan market
 - Technicians were dispatched for overseas training for the first time
 - Achieved the first sales order of Techcross BWMS (Yangzijiang shipyard)
- 2013**
 - Obtained technical service authorization of Techcross
- 2014**
 - Became the ARA of Hyundai
 - The Year of Quality, Standardization and Responsibility
- 2015**
 - 10th Anniversary Celebration of WinKong Marine
 - Noise and vibration testing qualification certification from DNV/CCS
 - Established Zhoushan and Shanghai service stations
- 2016**
 - Became the Best partner of Evergreen
 - Established Techcross-WinKong China service center
 - Obtained service authorization of Kawasaki BT and ARA of Mitsubishi MET/UE Engine
- 2017**
 - Obtained Quality Management System Certificate of CCS
 - Proposed platform-based development strategy of "Global marine service", "Deliver on your expectations"
- 2018**
 - Expanded supply side of China, Japan and South Korea
 - Established a ship design group
 - Awarded with High-tech Enterprise

2019-2020 NEW QUALITY STAGE

- 2019**
 - Digital year
 - Completed a Ship Maintenance Base in Zhejiang and Shanghai
 - Scientific and technological achievements transformation of Shanghai Ocean University-Ship ballast water testing laboratory
 - WinKong-Techcross BWMS China Training Center Inauguration Ceremony and the Marine Blue Technology Exchange Conference
 - Formulated "1211" development strategy
- 2020**
 - Became the PRA of Hyundai
 - WinKong digital innovation center was officially established
 - SmartEye empowered the frontline of anti-epidemic production
 - Executed Dolphin Plan
 - Established Qingdao Global Marine Safetycare Technology Co., Ltd. (GMScare)
 - Awarded with Specialized and New Enterprise

2021 NEW QUALITY STAGE

- 2021**
 - Launched MarinSmart Platform
 - Qingdao Free Trade Zone MarinSmart Supply Chain Co., Ltd. was officially under operating
 - Established Qingdao MarinSmart Technology Co., Ltd. based on the digital innovation center
 - Established Qingdao MarinSmart Ship Design Institute Co., Ltd.
 - Awarded with Global Service Practice Case of 2021 China International Fair for Trade in Services
 - Awarded with 2021 Shandong Gazelle Enterprises
 - Awarded with 2021 The First Prize of China Industry-University-Research Cooperation Innovation and Promotion
 - Awarded with National Engineering Laboratory for Technology of Testing and Experiment in Offshore Engineering Equipment
 - Became the Member of China Society of Emergency Management
 - Became the Member of TEMWC of China Society of Emergency Management
 - Became the SRA of Hyundai
 - Contracted strategic cooperation agreement with China Mobile 5G, RealWear AR head-mounted computer and Inmarsat satellite communications
 - Became the First Batch of Enterprises Registered in RCEP
 - Key Contract Platform Project of Qingdao Free Trade Zone Shipping Logistics
 - Awarded with Qingdao 2021 Technology-Advance Service Enterprises

2022-2023 NEW QUALITY STAGE

- 2022**
 - Symbiosis year
 - Became the best global partner of Techcross
 - Set the goal of going public within the fifth five-year plan period
 - Launched MarinSmart Platform 2.0
 - Launched Marine Industrial IloT1.0
 - Proposed the excellent service
 - Proposed a Strategy for Group-wide Operation
 - Talent Achievement System
 - Awarded with Mitsubishi MET license officially
 - MarinCare Equipment Health & Efficiency Ecological Management System
 - Became the member of China Institute Of Navigation
 - Awarded with the first prize of Smart Park(Industrial Park) of the 5th "Bloom Cup" 5G Application Competition
 - Selected by the 2022 first batch of small technological giant enterprises of Shandong Province
 - Rewarded for R&D investment of the listed 70 Qingdao incubator as private enterprise champion
 - Awarded with Innovative Demonstration Enterprise in Service Industry of Qingdao
 - Awarded with the TOP 30 of Qingdao Industrial Internet Platform
- 2023**
 - Launched MarinSmart Platform V2.0
 - Signed LTSA with Hyundai
 - Opened WinKong Marine "CUD Work Station"
 - Awarded with China AEO Certification
 - Awarded with Industry Application Innovation Promotion Center(Marine Industry)
 - AAA-level "Enterprise with Good Standardization Practices"
 - Top 100 Innovative Potential Private Enterprises in Shandong Province
 - High-Growth Marine Enterprises in Qingdao
 - Qingdao "Eagle Enterprise"
 - Shandong Province Demonstration List for the Integrated Development of New Generation Information Technology and Manufacturing

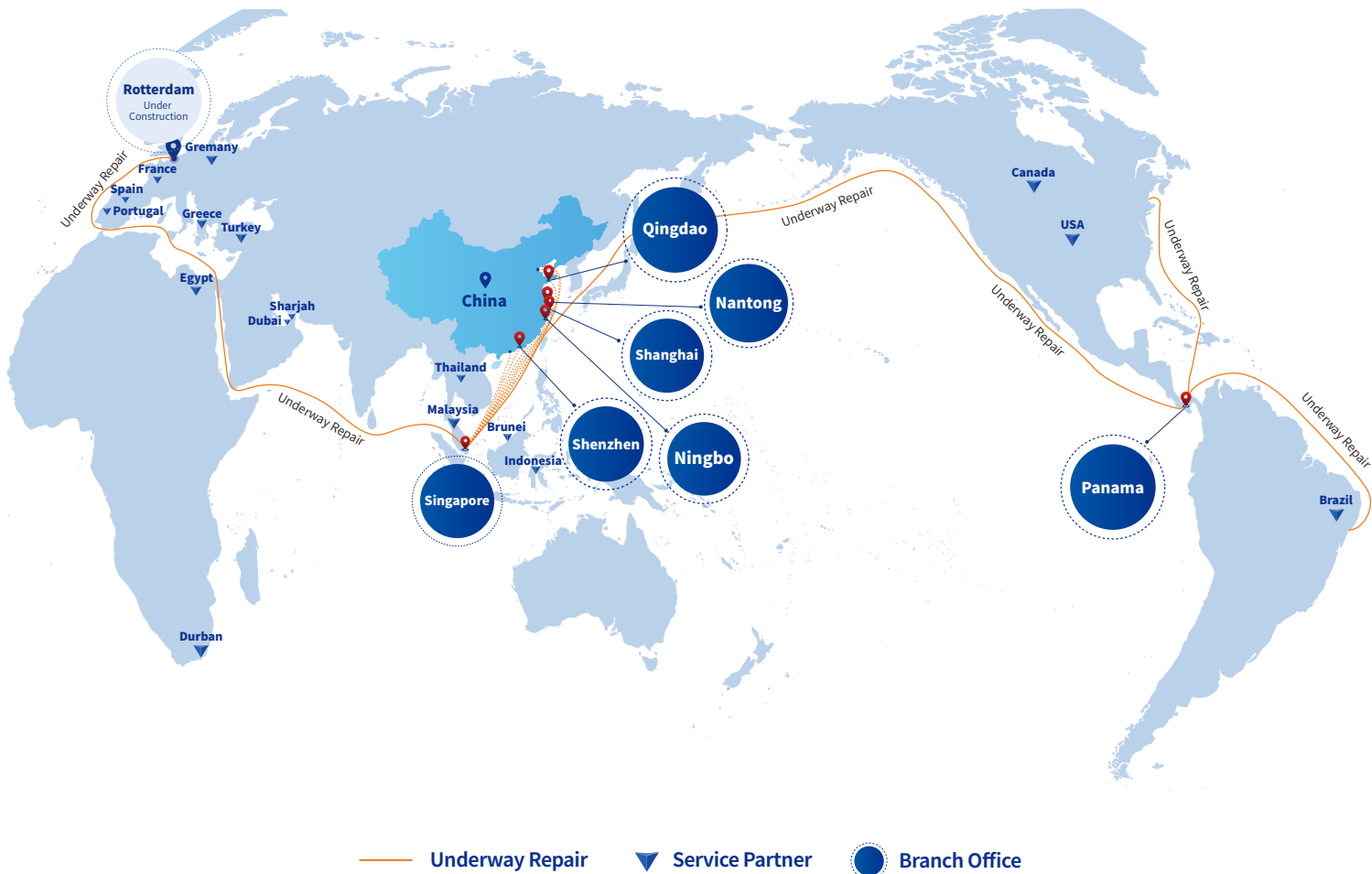
2024-2025 NEW QUALITY STAGE

- 2024**
 - Outstanding Service Trade and Service Outsourcing Enterprises
 - Launched D-VesselKeeper Ship Management Platform
 - Opened "HD HMST China Service Station"
 - Ship Planned Maintenance System(PMS) Approved by CCS
 - First Installation of Ship Energy Efficiency Monitoring(EEM) System
 - Zhixin Security Inspection System Selected for the Ministry of Transport's Maritime "Four Modernizations" Construction Project
 - Qingdao "Advanced Military Unit"
- 2025**
 - Ship Energy Efficiency Management(EEM) System and Ship Predictive Maintenance System(PHM) Approved by Class NK

Core Competitiveness



Global Service Network



Services & Products

6 Business Sections



Engineering & Technical Service

- Main Engine Services
- FIVA/HPS Test Bench
- Auxiliary Engine Services
- Electrical Automation
- Hydraulic
- Turbine
- MSBD Maintenance
- Governor
- Reconditioning
- Laser Cladding & Welding
- Electrical Modification
- Retrofit Supervision
- Exchange Repair
- Steel & Piping
- Underwater Service
- Spares



Supply Chain Management

- Main Engine
- BWMS
- Shaft Generator
- EGCS
- Auxiliary Engine
- AMP
- Rotor Sail
- FGSS/LFSS
- Turbocharger
- Bonded Warehouse
- Commissioning & AS Service
- Resource Managing



GMScare Laboratory Testing

- Water Analysis: D-2 Test, VGP Test, Bilge/Drinking/Sewage/Boiler/Scrubber Water
- Oil Analysis: Lub. Oil & Fuel Oil Testing
- ME/AE Exhaust Gas Analysis
- IHM Testing



Green Decarbonization Solutions of Full Life Cycle

- CII Compliance EPC Solutions based on Ship Energy Efficiency Monitoring System
- Ship Energy Efficiency Improvement Solutions
- 3D Scanning & Retrofit Engineering Design
- Newbuilding Ship design



Ship Digitalization Products and Solutions

- MarinSmart Platform (Online Procurement)
- MarinCare IIoT Platform (D-VesselKeeper, SmartEye, SmartShipyards, Vesselnet-Wi-fi Communication Network Infrastructure)
- Intelligent PSC/FSC
- EnginePro
- Intelligent Management of Fishery Cold Chain



Intelligent Training

- Crew Training
- Marine Engineer Training
- New Product Training
- Electrical Training
- Manufacturer Training

Engineering & Technical Service

Data-Driven Full Life Cycle Service



Data Empowerment for manufacturers' design, production and related facilities

- Based on D-VesselKeeper (PMS) system + WMS + EnginePro + Data Analysis + experts evaluation
- Spare Parts Optimization
- Product Upgradation

Proactive & Customized Maintenance

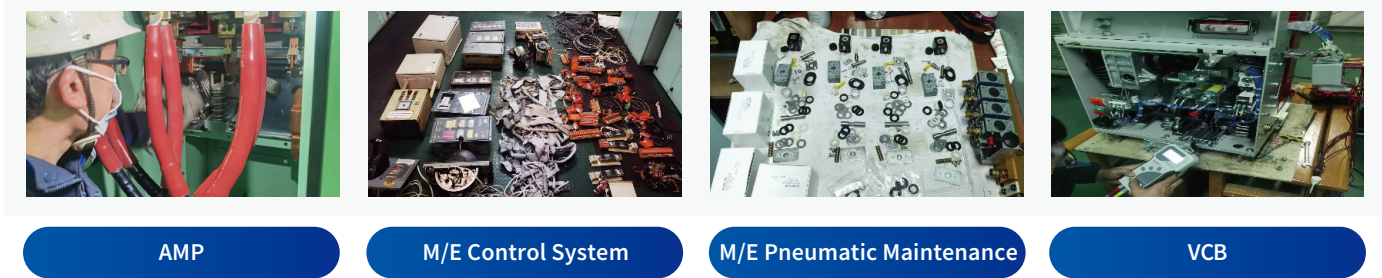
- Based on D-VesselKeeper (EEM&PHM) equipment AI diagnosis, operation & maintenance data real-time analysis plus experts evaluation
- Predictive service instead of breakdown maintenance
- Data-driven dynamic maintenance planning
- Periodic Technical Report

Innovative Business Model

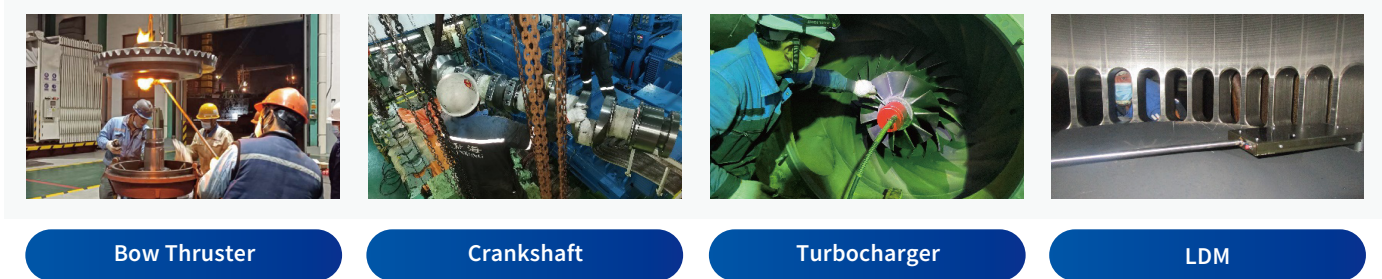
- Lumpsum Package Service Agreement (LPSA)
- Long-term Service Agreement (LTSA)

Ship Repair Service

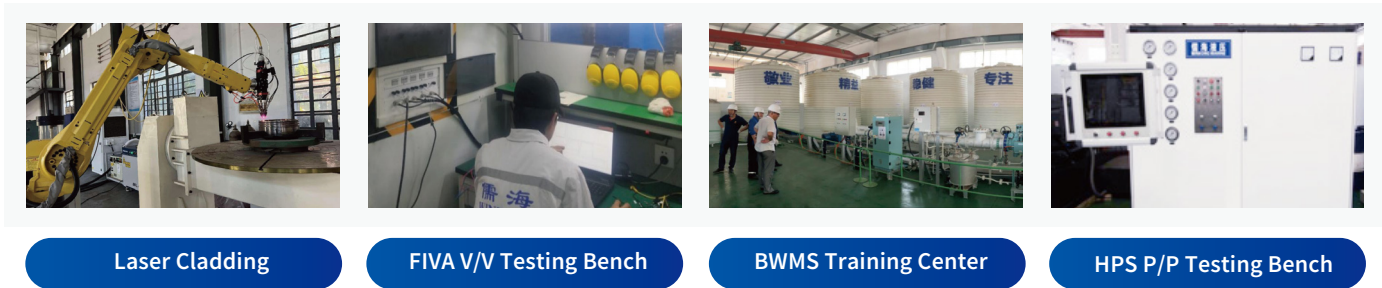
Automation Service



Engine Machinery Service



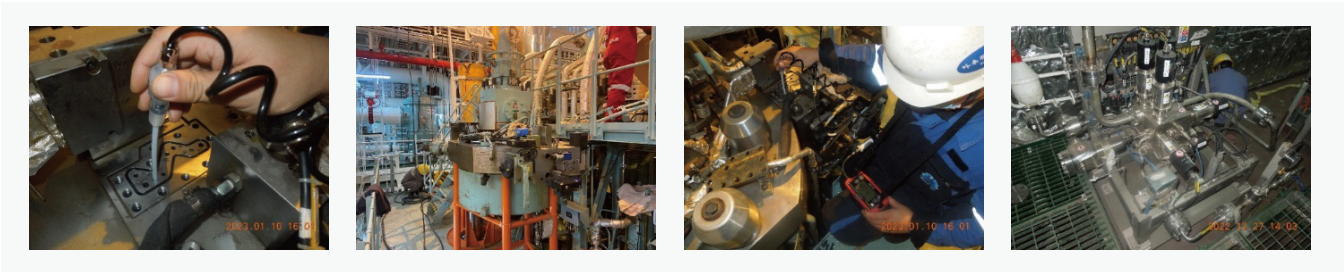
Testing Workshop, Recondition Workshop, Bonded Workshop, Training Center



Spare Parts Sales

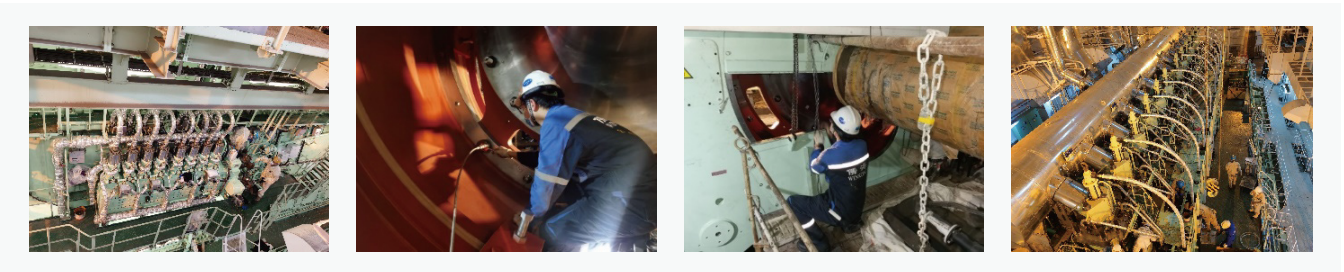
Marine Spare Parts Sales, Intergration of Service Provider,
Purchaser and Supplier

■ Dual Fuel M/E Maintenance Case



Vessel Type: 210,000DWT Bulk Carrier M/E Engine: HSD 6G70ME-C10.5-GI

■ New Shipbuilding M/E & Shaft Generator Maintenance Case



Vessel Type: 24,000TEU Container M/E Engine: HSD-WINGD 12X92-B Shaft Generator: 4,950KW/690V/4200A/78RPM

Manufacturer Authorization | High-quality Control | Global Network | Quick & Worry-Free |
AR Empowerment | Increase Efficiency and Reduce Cost

Main Engine, Auxiliary Engine ,Turbocharger

ME/AE

- MAN • ZMD • CSE
- JAPAN ENGINE • WINGD
- WARTSILA • YANMAR
- DAIHATSU • HANWHA
- HYUNDAI • MITSUBISHI

HOT SELLERS

- S50ME-B/C • S60ME-C
- G70ME-C • S50MC-C
- S60/70MC-C • RT-Flex 82/84



OMD Overhaul Kits



AVR



Pneumatic Repair kit



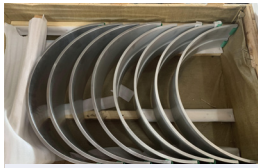
Proportional valve



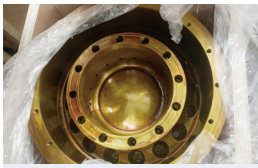
Position Sensor



Piston Ring



Crosshead tile assembly



Piston Corwn

Anti-Flush Filtration



15PPM&Oil Mist Detector



Electric / Automation



Air Compressor



Valves/Cables/Pumps



Compressor



Deck / Mooring Mechanics



Laboratory Testing

Package Solution Provider for Marine Testing Service

700+
Customers

80+
Global Network

35
Global Co-labs

4,000+
Vessel testings

680+
Global Port Service Coverage

» Water Analysis

- BWMS IMO D-2 commissioning test
- EPA/USCG VGP test
 - Ballast Water
 - Bilge Water
 - Grey Water
- EGCS wash water
- Sewage water
- Drinking water
- Boiler water
- Cooling water



System Check & Sampling

» Oil Analysis

- Fuel oil testing and solutions
- Lubrication oil testing

» ME/AE Exhaust Gas Analysis

- Exhaust gas Analysis for SCR/EGR/EGCS
 - SOX - NOX - CO2

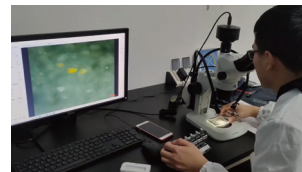
» Comfort Class Measurement

» Drug test

» Alcohol test



Indicative Analysis



Detailed Analysis at Lab.



Detailed Analysis at Mobile Lab.

» Inventory of Hazardous Materials(IHM)

- IHM inspection • IHM maintenance
- Asbestos removal

» Sensor Calibration for Anti-pollution Equipments

- BWMS sensor calibration
- SCR/EGCS sensor calibration

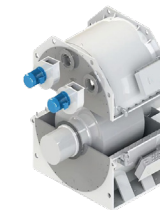
» Testing Kit Supply

- Drinking water test kit
- Lubrication oil test kit
- Boiler water test kit

10+Classification Society Approval & ISO 17025 Lab Qualification



Equipment Sales



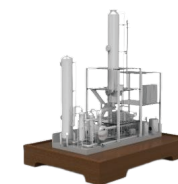
Shaft Generator



AMP



EGCS



OCCS



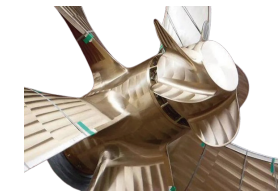
CD Bilge&EGR
Combined System



ORC Waste Heat
Power Generation System



Double Wall Pipe



HVAF



Ballast Water
Treatment System



LNG FGSS



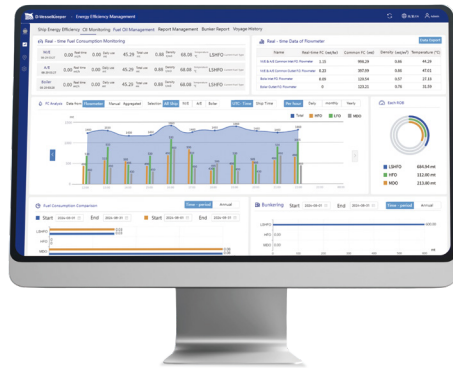
Rotor Sail



High Efficiency Propeller

Green Decarbonization Solutions of Full Life Cycle

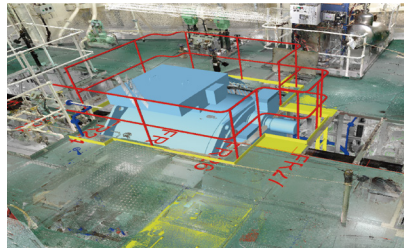
Based on Energy Efficiency Management (EEM) System



Advantages of EEM

- Approved by class
- Data acquired automatically, accurate and credible.
- Connected automatically with DNV OVD for verification, generate DCS and MRV reports, providing data support for owner's EU ETS and FuelEU.
- Continuous energy efficiency optimization suggestions.

Provide Multiple Engineering Solutions



Propulsion System Optimization

- Rotor Sailor Retrofit
- ALS (air lubrication system) Retrofit
- TCCO (turbo charger cut-out) Modification

Options

Power System Optimization

- Shaft Generator Retrofit
- AMP-Alternative Maritime Power (Shore Power System)
- VFDs Modification
- LED Retrofit
- Electric Power Quality Optimization

Emission Reduction

- OCCS(onboard carbon capture system) Retrofit
- EGCS Retrofit
- SCR Retrofit
- Ship GHG Comprehensive Solutions

Hydrodynamic Optimization

- High Efficiency Propeller Retrofit/Modification
- PSV(pre-shrouded vanes) Retrofit
- HVAF(hub vortex absorbed fins) Retrofit
- PSS Retrofit
- WID Retrofit
- FR Retrofit

Alternative Fuel/Energy Supply System Retrofit

- Methanol Low-Flashpoint Fuel Supply System (LFSS) Design
- LNG Fuel Gas Supply System (FGSS) Design
- Ammonia Fuel Gas Systems (AFSS) Design

Consultancy → Engineering → Purchasing → Construction



Digitalization Products and Solutions

MarinCare IIoT Platform



Digital Ship

> D-VesselKeeper Integrated Ship Management Platform

- EEM
- WMS
- PHM
- Crewing
- PMS
- Routing
- HSQE
- D-Knowledge

> SmartEye

- AI Head-Mounted Tablet
- Engine Room Network Module
- Digital Procedure Management
- Remote Expert System
- Ship Safety Self-Inspection
- Digital Report

> Maritime Knowledge Base

- D-Con
- D-Convention
- EnginePro



Vessel Network Infrastructure + Cyber Security Solutions

> Smart Shipyard

- QC Platform (Remote QC)
- Personnel Management
- Intelligent WMS

> Smart Maritime Services

- Intelligent PSC/FSC
- Ship Assets Appraisal

> Smart Offshore

- Intelligent Inspection

> Smart Fishery

- Intelligent Management of Fishery Cold Chain

> Digital Twin

- Vessel Digital Twin

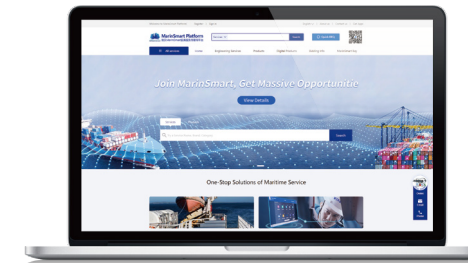


Digital Drive



Digitalization and Intelligent Solutions

MarinSmart Platform



Business Mode
B2S2B



Ecological View
Symbiosis
 $\Delta E = (S+1)$



MarinSmart Culture

• Fecundity

• Vitality

• Cohesion

• Inner Beauty

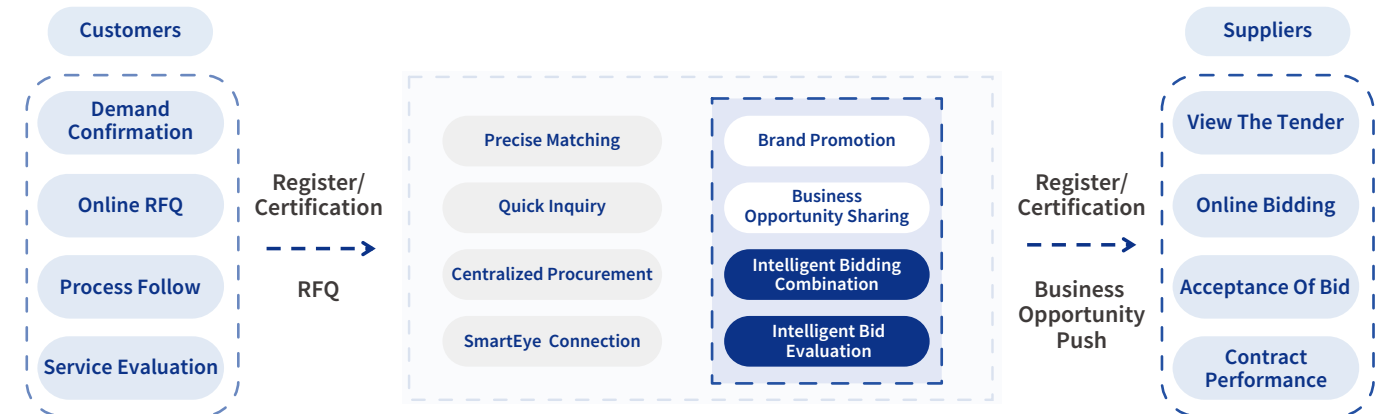
• Standard

• Creation

• $\Delta E = (S+1) N$

• Dedication

— Supply and Demand Platform for Marine Services, Equipments, Spares —



Online + Offline order to participate in Centralized Procurement.

Same Service at same city within 10-days interval automatically group together.

The platform initiates centralized procurement.

Increase the employment rate and reduce the production and operating costs.

Intelligent Training



Customer Training Cases

