



Integrated Solutions for Marine Propulsion

Innovating Today, Leading Tomorrow



PROPELLER &
SHAFTING SYSTEM



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CEO MESSAGE

Since its founding in 1975, SILLAMETAL has dedicated itself to the field of marine propulsion systems, achieving continuous growth on the seas for more than half a century.

A propeller is the heart of a vessel—an essential device that determines safety, efficiency, and environmental performance. Recognizing its importance, we have continuously pursued research and innovation to deliver products that guarantee the highest performance and reliability in any environment.

SILLAMETAL's strengths lie in craftsmanship refined through decades of experience, precision machining powered by advanced facilities, and tailored design capabilities for diverse vessel types and operating conditions.

We are not merely a supplier but a trusted partner who contributes to safe voyages and efficient operations for our customers.

Looking ahead, SILLAMETAL will actively contribute to achieving the IMO's goal of "2050 net-zero GHG emissions" through the development of eco-friendly and high-efficiency propulsion systems.

Building on the technological strength and innovation ecosystem of Korea's shipbuilding industry, we will continue to expand not only in merchant vessels but also in naval and specialized ship sectors.

Based on next-generation propulsion technologies, we will respond to the rapidly changing global maritime security environment and grow into a trusted global specialist in ship propulsion.

We sincerely thank you for your continued support and trust, and look forward to opening a new horizon in the future maritime industry together with SILLAMETAL.

CEO Hyung-Jin Kim

SILLAMETAL HISTORY

1970s~

- 1975.01** SILLAMETAL industries established (Namhang-dong, Yeongdo-gu, Busan)
- 1978.04** Registered as the specialized plant for shipbuilding material by the Commerce-Industry Ministry
- 1978.06** Registered as the company that supplies to the Navy and to the Marine Police
- 1979.05** Developed propeller for special high speed small vessel (Ministry of National Defense)

1980s~

- 1981.05** Conferred with letter of appreciation from head of the Defense Procurement Agency
- 1983.08** Registered as the quality improvement company by the Commerce-Industry Ministry
- 1986.06** Formed technology alliance with Japan's KAMOME concerning propeller technology
- 1988.07** Incorporation of going business (SILLAMETAL CO.,LTD)

1990s~

- 1990.04** Designated as cutting edge technological industry
- 1990.07** Approval for the KCX.MSC blade development business
- 1991.09** Signed technology alliance with Germany's SULZER ESCHER WYSS GMBH
- 1992.07** Awarded commendation "Trade Day" from Minister of the Commerce
- 1995.10** Produced CPP & HUB for 3,000 Ton class ROKN First destroyer
- 1995.11** Awarded commendation "Development of outstanding capital goods" from the President of Korea
- 1997.01** Produced CPP & HUB for 5,000 Ton class destroyer



2000s~

- 2004.11** Produced CPP & HUB for large landing ship (LPH 6111)
- 2006.07** Produced CPP & HUB for 10,000 Ton class AEGIS vessel
- 2007.01** Achieved Certification of company attached R&D center
- 2007.06** Selected as the leading company in Busan in the strategic business industry
- 2007.09** Registered as company specialized in components and materials
- 2008.09** Established plant No. 2 (Sinpyeong-dong, Saha-gu, Busan)
- 2008.12** Marine Propulsion (Propeller and Shaft) 3,000 set production
- 2012.03** Awarded commendation "Best Taxpayer" from the Minister of Strategy and Finance
- 2012.04** Registered as Inno-Biz
- 2012.06** Development of Fuel Saving Propeller Cap
- 2012.07** Production of FPP with a weight of 75 Ton
- 2012.12** Delivered 7.9m Dia. Twin propellers for 170K CBM LNGC
- 2014.07** Selected as a Root-Technology Company by SMBA
- 2015.03** Acquired a patent for CPP Hub Assembly
- 2018.04** Development of 150kW class RIM Driven Electronic Propulsion System
- 2018.04** Delivered 10.4m Dia. propeller for VLCC
- 2018.04** Delivered 8.4m Dia. Twin propellers for 180K CBM LNGC
- 2018.09** Awarded commendation "Development of capital goods" from the Ministry of Trade, Industry and Energy (MOTIE)
- 2019.01** Delivered 10.6m Dia. propeller for VLCC
- 2017~22** 2,800ton class frigate / CPP Complete System (#1~8)

2020s~

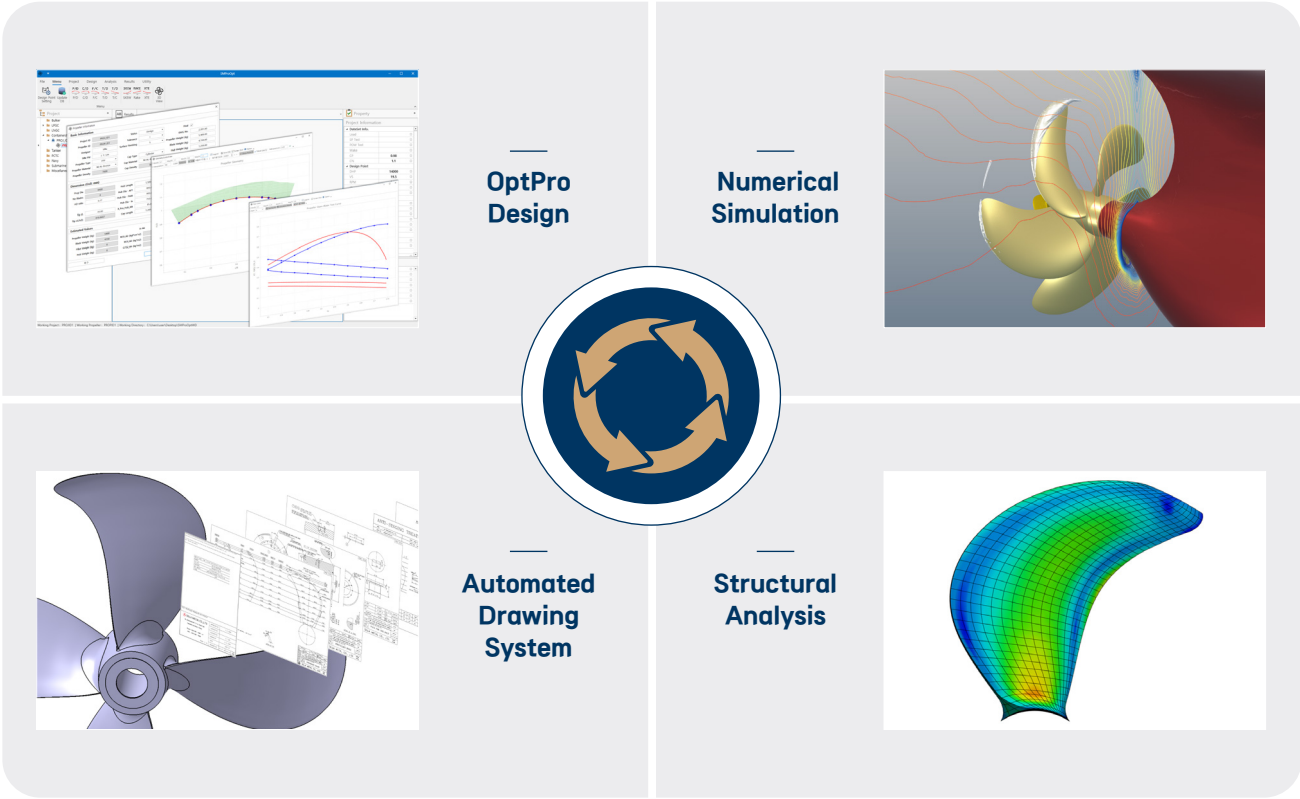
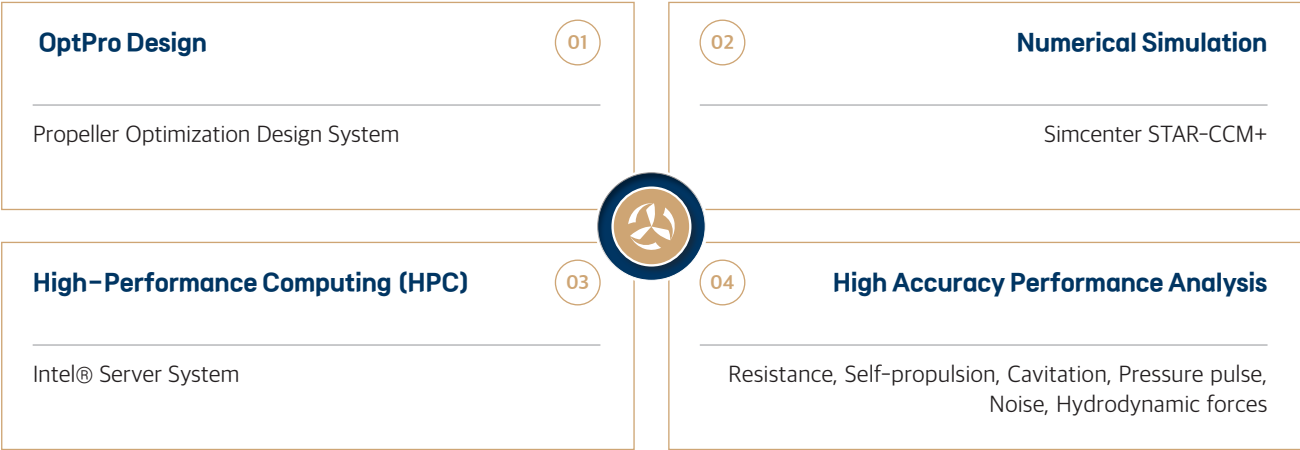
- 2023.05** Expansion of production Capacity (New "F" Plant)
- 2023.05** Set up High Performance Computing (HPC) system with SIEMENS STAR-CCM+
- 2023.** 3,000 ton class KCG / CPP Complete System (#1~2)
- 2024.11** Completed High-Efficiency Propeller Retrofit for 180K B.C
- 2025.10** Completed High-Efficiency Propeller Retrofit for 13K TEU C.V

Design Technologies

Reducing propulsive losses is recognized as a fundamental strategy to lower fuel consumption and comply with crucial IMO regulations, including EEXI, CII, and EEDI.

Optimizing propellers is identified as a cost-effective and powerful approach for vessel operators facing the urgent need to adopt solutions that align with the more stringent emission reduction targets set forth in the revised IMO Greenhouse Gas (GHG) strategy. SILLAMETAL's propeller optimization technology (S-OptPro) helps you meet these requirements by reducing fuel consumption and emissions.

• State-of-the-art Design System



Manufacturing Technologies

SILLAMETAL integrates predictive casting analysis and precision 3D scanning-from virtual validation to full-scale digital inspection-providing a complete quality assurance system that ensures excellence from design to delivery, builds customer confidence, and strengthens global competitiveness.

• Casting Analysis System

Our casting simulation (AnyCasting) improves product quality from the earliest design stage.

Precision Simulation	3D analysis of melt flow and solidification inside the mold
Pre-Verification	Detects and eliminates potential defects before production
Optimized Design	Reduces rework and maximizes efficiency This predictive approach ensures reliable quality assurance, shorter lead times, and lower costs, while continuously enhancing technology through accumulated data

Casting Pouring and Solidification

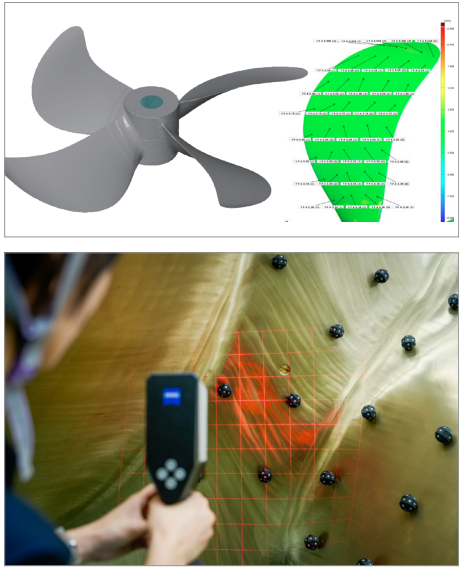


• 3D Scanning Technology

High-precision 3D scanning (ZEISS T-SCAN HAWK 2) is an integral part of our quality control process. By capturing the exact digital geometry of large and complex propellers, we secure dimensional accuracy and inspection efficiency.

- Non-contact measurement of full surface geometry
- Faster inspection & reverse engineering support
- High-resolution scanning for complex shapes
- Direct CAD comparison for validation

With this technology, inspections become faster, more reliable, and product quality is consistently reinforced.



FPP Fixed Pitch Propeller

SILLAMETAL has been a trusted supplier of Fixed Pitch Propellers for more than five decades, earning a strong reputation for performance and quality.

- ✓ Propellers are custom-designed and cast to match the vessel's operating profile, type, and engine characteristics.
- ✓ Our portfolio covers VLCC, LNGC, container carriers, tankers, bulk carriers, and special-purpose vessels.
- ✓ With advanced machining and casting technology, we produce propellers up to 11m in diameter and 90 tons in finished weight.

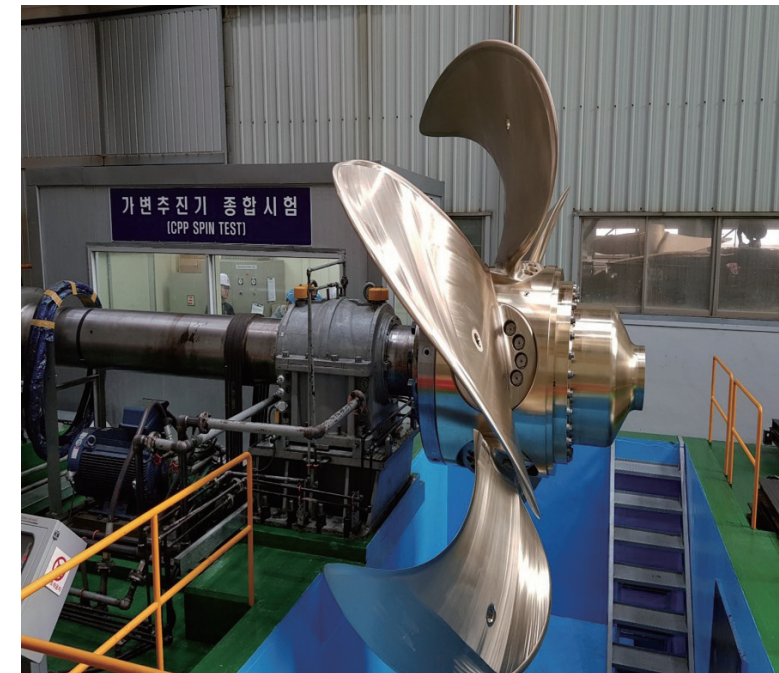
From casting to final machining, every SILLAMETAL propeller is engineered precisely to design, ensuring lasting reliability.



CPP Controllable Pitch Propeller

SILLAMETAL manufactures and supplies blades and hubs for Controllable Pitch Propeller for most domestically built Navy and Coast Guard ships, with a track record of manufacturing and maintaining CPP system.

SILLAMETAL has been supplying the KaMeWa CPP full system to the Republic of Korea Navy and Coast Guard ships through technical cooperation production with Kongsberg Maritime Sweden AB (KMAB).



CPP Test Facility of SILLAMETAL

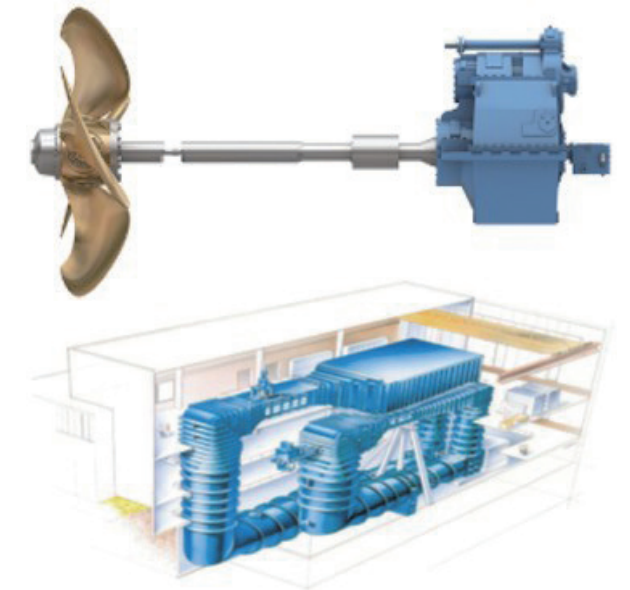
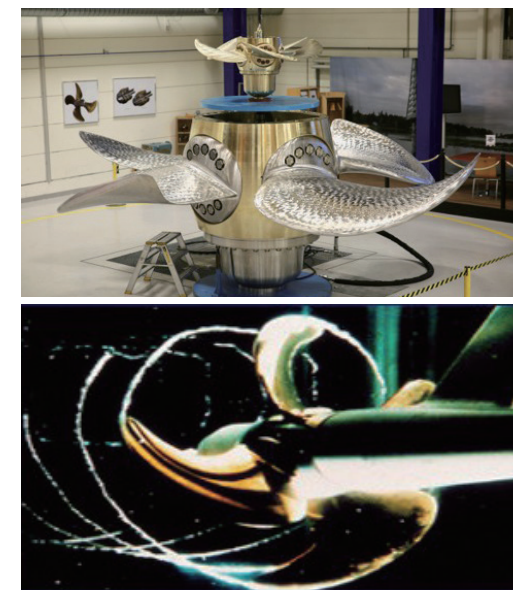


Daegu Class Frigate (2021)




3,000 Ton Class OPV (2023)

Over the years, KaMeWa CPP has delivered more than 10,000 main propellers worldwide, over 10 percent of which have been delivered to governmental service, navy, coastguards, etc. The experience gathered over 80+years is stored in, and readily available through the propulsor performance database at KMAB's unique Hydrodynamic Research Centre (HRC).




S-Cap Propeller Cap with Fins

Efficient Propeller Cap




Fuel savings

Up to 3% fuel savings




Performance

Reduced risk of rudder erosion, propeller noise, and vibration



Practicality

Simple installation at lower cost than comparable ESDs



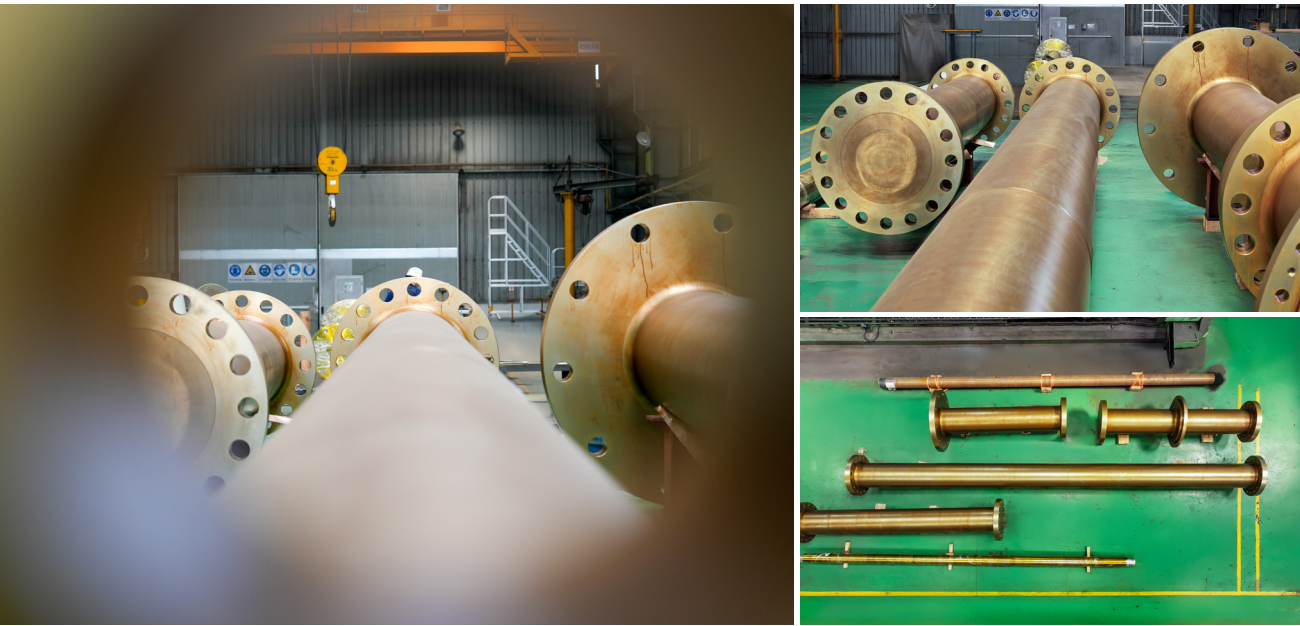
Quick ROI

Achieves fuel savings within 1.5 years



Shafting System

SILLAMETAL manufactures shafting systems for both water-lubricated and oil-lubricated applications, tailored to the operating characteristics of each vessel. Since our establishment, we have supplied propeller and shaft packages together, ensuring maximum propulsion efficiency and reliable vessel operation.




Quality Management

At SILLAMETAL, every propeller is manufactured and inspected in strict accordance with the regulations of Classification Societies.

We ensure precision manufacturing that fully complies with design specifications, supported by stringent quality control at every stage of production.

Our inspections include:


01



Chemical/Mechanical tests

verification of material composition and strength properties.


02



Dimensional checks


precise measurement of propeller geometry against design specifications.

03




Balancing tests

04




Dye penetrant testing

05



Contact tests

06









3D Scanning

This comprehensive quality management ensures that every propeller meets the highest standards of accuracy, performance, and reliability.



Maintenance & Repair

At SILLAMETAL, delivery is only the beginning. We provide comprehensive repair and after-sales support to sustain performance, minimize downtime, and ensure class compliance.

-  Damage assessment and documentation
-  Class approval support
-  Precision repair - including welding and polishing
-  Non-destructive testing
-  Spare part manufacturing and installation support
-  Consulting - propeller replacement and efficient application of Energy Saving Devices

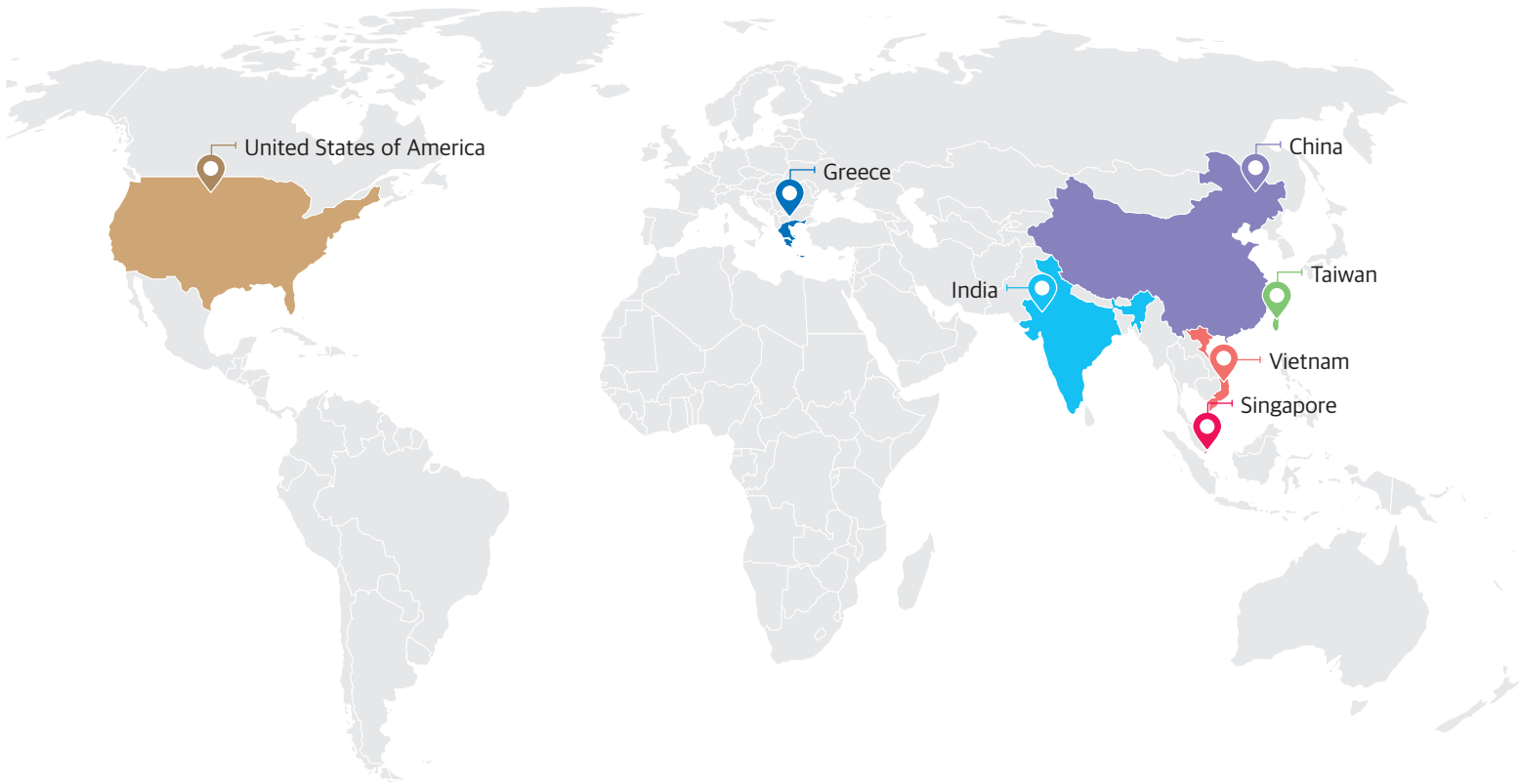
When urgent repairs are required, our team responds quickly-anywhere in the world, even under the most demanding conditions. Every repair is performed to restore propellers close to their original condition, ensuring reliable performance at sea.



Global Network

Headquartered and based in Korea, SILLAMETAL serves customers worldwide through a strong network of international partners and agencies.

Our global presence ensures that we can respond swiftly and effectively to the diverse needs of the marine industry, delivering trusted service anytime, anywhere.



Precision in casting,
Reliability in Operation

