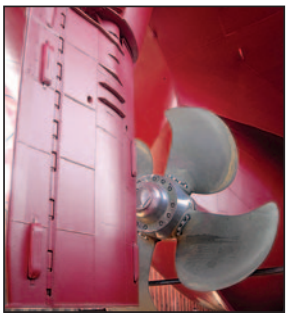
SUBSEA NEWS

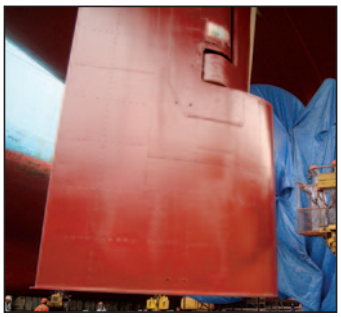
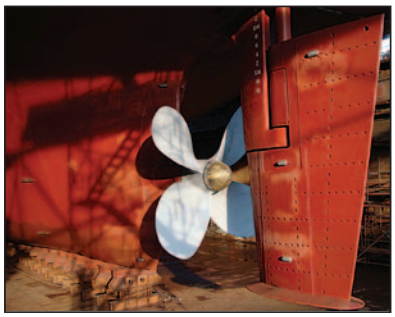
PROTECTION AND PERFORMANCE

LETTER / 259

Amat Engineering – Representing Subsea Industries in Turkey

LASTING PROTECTION









Ecoshield gives a very thorough and lasting defense against cavitation and corrosion damage for a ship hull's entire service life.

The coating equally provides the rudder with an impenetrable protective layer while its flexibility enables absorption of the forces that are produced by cavitation. This prevents the damage normally caused by this phenomenon.

Without proper protection against cavitation and the resulting erosion and corrosion damage, the financial consequences can be severe.

By removing the existing paint layers and applying Ecoshield on the rudder we can break the never ending cycle of painting, suffering damage, having to perform extensive repairs in drydock followed by a full repainting, again and again.

With an Ecoshield application no full repaint will be needed during drydocking. Ecoshield is guaranteed for ten years. At the most, minor touch-ups will be required.

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ECOSHIELD®
ULTIMATE PROTECTION

Amat Engineering – Representing Subsea Industries in Turkey

Amat Engineering has represented Subsea Industries in Turkey since 2014. We have worked together on a number of successful newbuild projects.

Thriving Turkish maritime scene

Turkey is a shipyard country. Its 85 shipyards have a combined annual capacity of 4.77 million DWT. Turkish shipyards specialize in building chemical tankers, dry cargo and bulk carriers up to 30,000 DWT as well as container ships up to 2,000 TEU. Turkish shipyards are recognized for producing technologically advanced and environmentally sustainable ships. The year 2023 saw a total of 84 orders placed with Turkish shipyards.

The near complete newbuild M/V Kystbunker II *at Akdeniz shipyard after the first coat of Ecospeed has been applied.*

The rudders of the newbuild icebreaking tug Antarctic *protected for life with Ecoshield.*

Turkish maritime fame goes all the way back to the days when the country was one of the centers of the Mediterranean's marine trade in Ottoman times. The Turkish maritime ecosystem is highly developed, supported by numerous players dedicated to servicing the needs of shipowners, shipbuilders, and ports.

Amat Engineering, based in Istanbul, is one of the primary suppliers in the Turkish shipping and shipbuilding industry.

“Cost-effective marine transportation has been, and always will be, an important issue,” says Amat. “Developments in shipbuilding technology are constantly leading to new

Orkun Comuoğlu, Founder of Amat Engineering (right) and Manuel Hof, Production and Sales Executive for Subsea Industries in the Amat Engineering booth at Europort in Turkey.

insights, using new techniques, shapes, energy, power and electronics for the purpose of staying competitive. Ease in operations, reliability of systems and quick maintenance while keeping costs low are of vital importance to our customers."

Orkun Comuoğlu, a mechanical engineer, established Amat Engineering in 2008. The company represents a number of major marine equipment and machinery manufacturers in Turkey. In 2014 Amat Engineering signed an agency agreement with Subsea Industries. Orkun works actively with Serdar İlkay, a naval architect who has been with the company since 2020, in making Subsea Industries products known and used in the Turkish shipbuilding industry.

Newbuild projects using Subsea Industries coatings

Amat Engineering has been involved in a number of important shipbuilding projects at Turkish shipyards where Subsea Industries coatings, specifically Ecospeed and

Ark Shipping's Antarctic *breaking ice with the hull well-protected with Ecospeed.*

Alfons Håkans Selene *newbuild ice class tug coated from gunwale to keel with Ecospeed preparing for launch.*

The Selene *hard at work in the ice in Kotka.*

Ecoshield have been chosen for hull and running gear protection.

Icebreaking tugs MT Antarctic, Polar and Polus, all owned by Ark Shipping

In 2017, Ark Shipping commissioned a newbuilt Anchor Handling Tug Supply (AHTS) vessel, *Antarctic* at Atlas Shipyard. Ecospeed was specified and applied to the underwater hull, and Ecoshield was applied to the sea chests, skeg, bossings, rudders and nozzles, stern tubes and tunnel.

This was followed in 2020 by the tugs *Polar* and *Polus*, also owned by

Ark Shipping. They were built at Atlas Shipyard and received the same coating applications as the *Antarctic* with Ecospeed on the underwater hull and Ecoshield on the rudders, nozzles and tunnels.

All three vessels are icebreaking tugs, and Ecospeed, with ice-abrasion resistance classification PC1 to PC7, was the perfect choice for them. PC1 - PC7 protection provided by a coating means the ship is classed to sail in any seas for 12 months of the year. This protection also allows for a reduction in plate thickness in certain parts of the ship which can result in a significant saving of weight and cost. The tugs have stood the test of time and the hulls and running gear were observed to be in excellent shape when inspected.

Newbuild tanker at Akdeniz shipyard

In 2017, Amat Engineering and Subsea Industries worked with Akdeniz shipyard to apply Ecospeed to the underwater hull (vertical sides and flat bottom) of a newbuild tanker, *Kystbunker II*, owned by Bunker Oil. Ecospeed is designed to be applied once and to last the life of the vessel.

Two newbuild tugs for Alfons Håkans

In 2021, the Sanmar shipyard was commissioned by the Finnish company Alfons Håkans to build two Tundra 3200 ice-class tugs, the *Helios* and the *Selene*. The underwater hull and skeg as well as the topsides were coated with Ecospeed for lasting protection.

The present and the future

We are currently working with Orkun and Serdar on some potentially major applications of Subsea Industries coatings, in this case for the offshore industry. This would entail the use of Ecolock which was designed specifically to protect static offshore assets for their active lifetime. Ecolock can be cleaned in the water when needed without any damage to the coating or loss of thickness. Because it is also completely non-toxic, there is no harmful effect to the marine environment, either when in use or when cleaned. It is the ideal coating for such assets. ■

Ark Shipping's Polus *nearing completion at the Atlas shipyard in Turkey. The underwater hull (dark red) is newly applied Ecospeed.*

ECOLOCK® ultra long-lasting protection for offshore hulls

Ecolock is designed to protect offshore vessels for decades without the need for drydocking. Increasingly, offshore units such as FPSOs, FSOs, FLRSUs and others used for offshore oil and gas exploration, drilling, storage and transport need to stay out of drydock for 15, 25 even 40 years.

The challenge has been to protect the underwater hull from corrosion and to provide a cleanable surface so that the biofouling that accumulates can be removed successfully and safely for UWILD and to reduce weight. Ecolock is the answer to that challenge.

Ecolock is an extremely tough and durable coating designed to remain in excellent condition for 15 - 25 years without drydocking, repair or replacement. Ecolock can be cleaned underwater as often as needed to meet the UWILD and weight requirements of FPSOs, drill ships and other offshore vessels. Ecolock is the result of continual R&D on offshore hull coatings since the 1990s.

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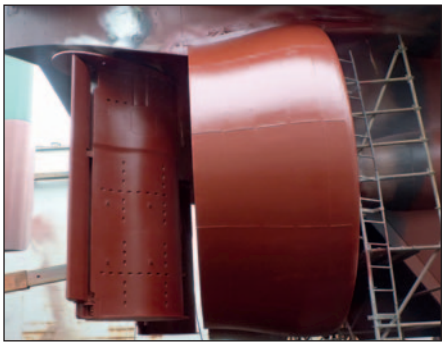
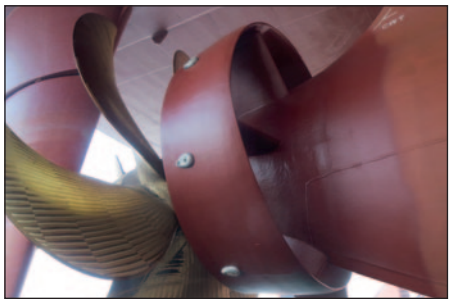
ECOLOCK®
LIFETIME CORROSION PROTECTION

SUBSEA

PROTECTION AND PERFORMANCE





Subsea Industries NV, was founded in 1983 specifically to take care of the design, development and marketing of what has become an evolving line of underwater hull and propeller cleaning equipment as well as the line of hard hull coating systems.

All products produced by Subsea Industries have the same goal in mind: To keep the underwater part of your vessel in the best possible condition for its entire lifetime at the best possible performance.

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