

Lasting protection for scrubbers and outlets

Subsea Industries is looking for representative agents



To support our continuous growth, we are expanding our worldwide network of Subsea Industries agents. This allows us to reach a much bigger public directly than would otherwise be possible.

Subsea Industries NV was founded in 1983 to take care of the design, development and marketing of an evolving line of underwater hull

and propeller cleaning equipment as well as a line of hard hull coating systems.

The purpose of the Ecospeed range of coatings and cleaning technology is to offer a long-lasting, non-toxic protection for all ships with a system that keeps a hull ultra-smooth and free of fouling for the service life of the vessel with minimal repair and no replacement. Instead of using chemi-

cals to kill and repel marine fouling organisms, Ecospeed uses a hard, impermeable, impenetrable coating along with manual removal of fouling at an early stage.

Contact us if you are interested in joining our network and help us build a strong relationship with our prospects and customers. We look forward to hearing from you.

**SUBSEA
INDUSTRIES**

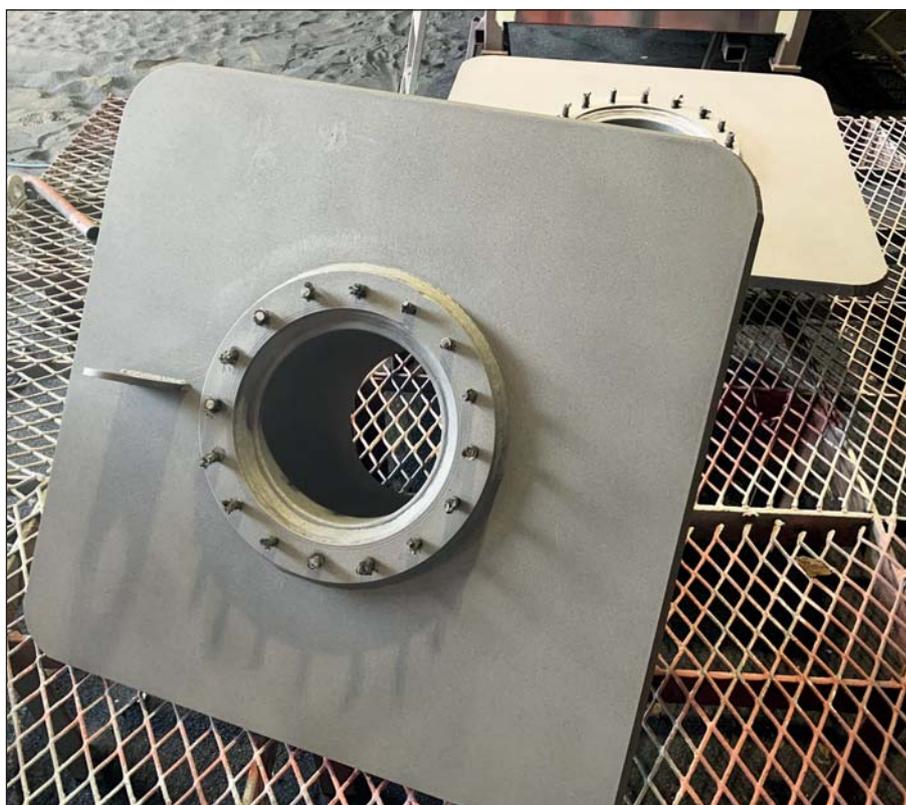
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Lasting protection for scrubbers and outlets

Recently our Ecospeed coating system was applied on the scrubber pipes, outlets and diffusers of several oil tankers and a bulker. This demonstrates that Ecospeed is not only the best option for the underwater hull of a ship but can also be used for a wide range of other purposes. The result is a lasting, non-toxic protection against corrosion, cavitation and mechanical damage.

At the start of 2016 the inside of a scrubber was coated with Ecospeed for the first time and this on a ro-ro ship in Landskrona, Sweden. The scrubber was located in one of the ballast tanks of the vessel. A lasting, chemical resistant coating was needed that could withstand the process of filtering out the hazardous pollutants of the exhaust gasses.

Since then Ecospeed has been applied on scrubber systems regular-



Scrubber system of oil tanker prior to Ecospeed application.

ly. Recently the scrubber pipes and outlets of three oil tanker and a bulker were protected with our coating

system. Similar applications have been planned in the near future.

Because of the tight regulations on emissions in the shipping industry, the installation of an exhaust scrubber system has become increasingly widespread. This unfortunately has also led to an increase of corrosion damage on scrubber pipes and outlets which results in water ingress in the engine room, ballast tanks and cargo holds.

Ecospeed however is highly chemically resistant. Using the coating to protect the exterior outlets as well as the interiors of scrubbers will prevent corrosion damage and the resulting consequences.



Application of Ecospeed on scrubber overboard pipes and outlet plates.



Ecospeed is chemically resistant and will withstand hazardous pollutants.



The second layer can be applied as soon as 3 hours after the first.



Application of the first of only two layers of Ecospeed.



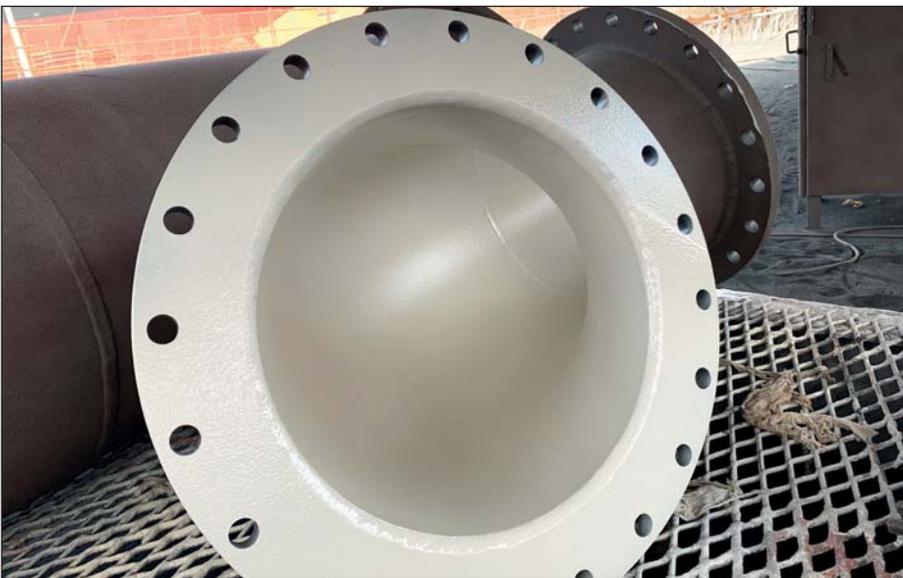
Ecospeed will protect the area around the outlets for the ship's entire lifetime.

There are also several other benefits that make Ecospeed the perfect choice.

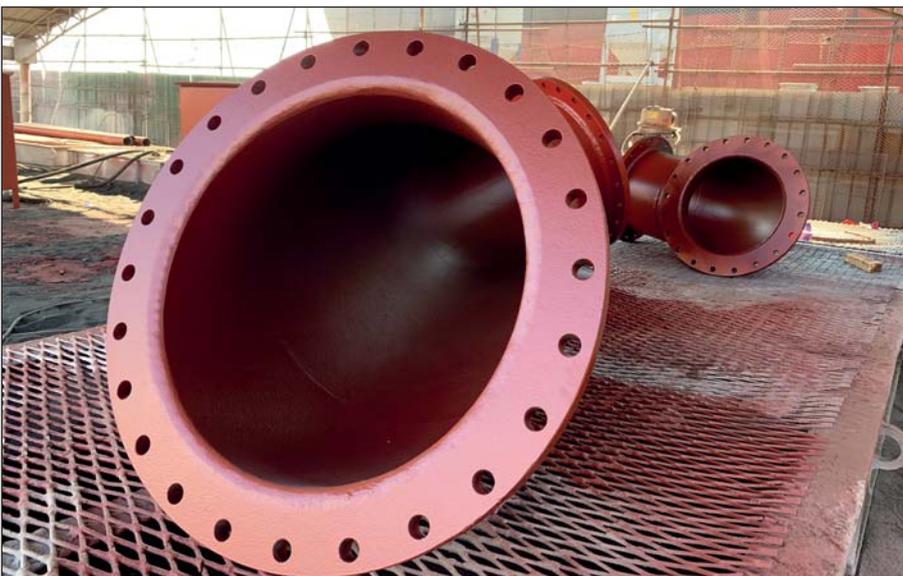
- The coating system is highly chemically resistant. Taking into account the nature of the process taking place inside the scrubber, this is essential for our customers.
- Ecospeed lasts the lifetime of a vessel. No repaints will need to be scheduled during future dockings of the ship. This saves on time and money.
- It is a true biocide-free solution. Independent research has proven that the coating is 100% toxin-free and that there is no negative effect on the water quality or the marine environment at any point of its application or use.



Scrubber overboard pipe prior to Ecospeed application.



No corrosion damage will appear on this scrubber pipe.



Scrubber pipes protected with Ecospeed against corrosion.

Ecospeed fits in seamlessly with the environmental idea behind scrubber systems. It is a lasting, chemically resistant coating that will withstand the hazardous pollutants and protect the scrubbers for the lifetime of the vessel.

Conclusion

Whenever lasting protection is needed for a ship, Ecospeed offers the best solution. Whether it entails the underwater hull of a vessel or any other part of the ship, applying this coating system will make sure you will not have to worry about repainting. This will save you time, money and a lot of irritation. ■

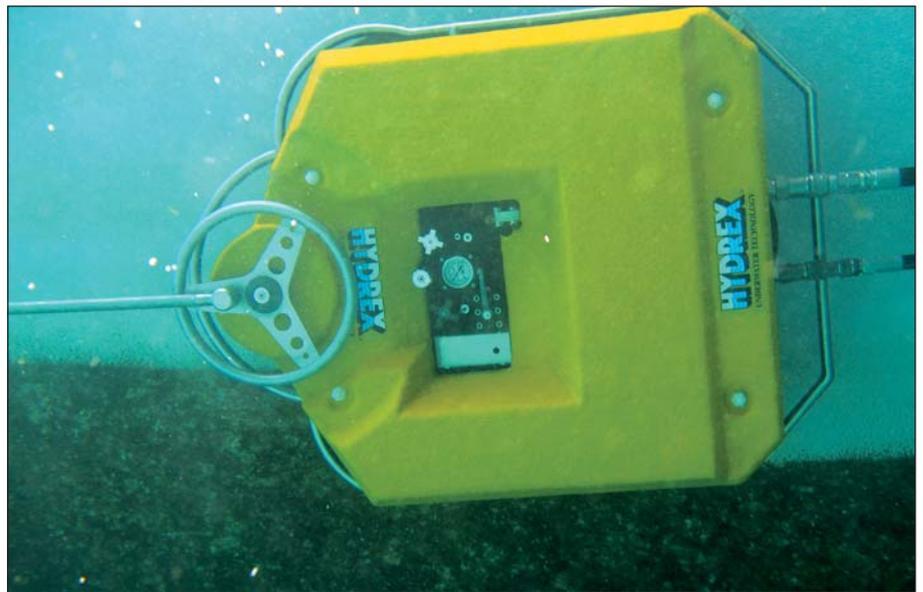
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Ecospeed, the coating for ultra long lay-ups

As a consequence of the current economic climate, more and more ship owners are forced to lay one or more of their ships up for longer periods. This has, however, no adverse effect on an Ecospeed coating which can always be restored to its optimum condition, regardless of how much fouling has attached itself to the hull while the vessel has been laying idle.

Ecospeed is ideally suited for ships during lay-ups because of its impermeability. This gives the coating its excellent and durable anticorrosive properties and protects the underwater hull against damage caused by any type of marine fouling. Despite the aggressive nature of certain types of fouling, no rust or damage to the steel will be present on the underwater hull of the vessel after cleaning.

This is illustrated by a cruise ship that remained stationary in the Caribbean for seven months after it was coated with Ecospeed. After this period the coating's qualities

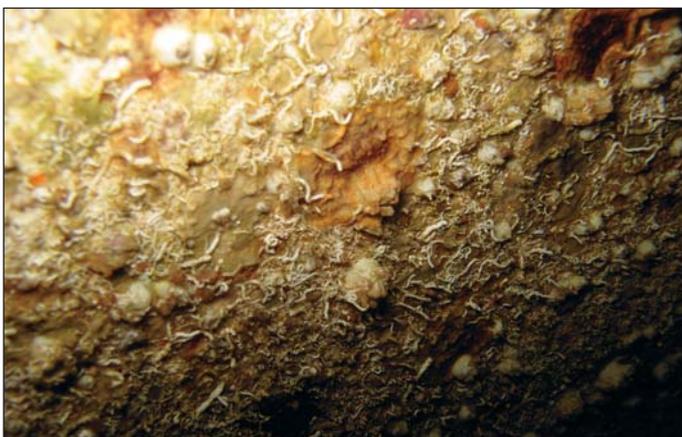


Even after long stationary periods the underwater hull of a vessel coated with Ecospeed can easily be cleaned underwater with divers or diverless systems.

allowed a complete removal of all fouling from the underwater hull of the vessel during an underwater cleaning without causing *any* damage to the underlying paint layers.

The coating's properties totally prevent fouling penetration, making the cleaning process extremely easy. It can be performed underwater or with controlled high pressure tools in drydock and can be repeated whenever needed during the vessel's

lifespan without causing damage or deterioration in quality. The coating's surface characteristics even significantly improve with each underwater hull cleaning. This unique quality gives shipowners the opportunity to have their ship operational again and its hull restored to its optimum condition whenever needed without any additional financial setback.

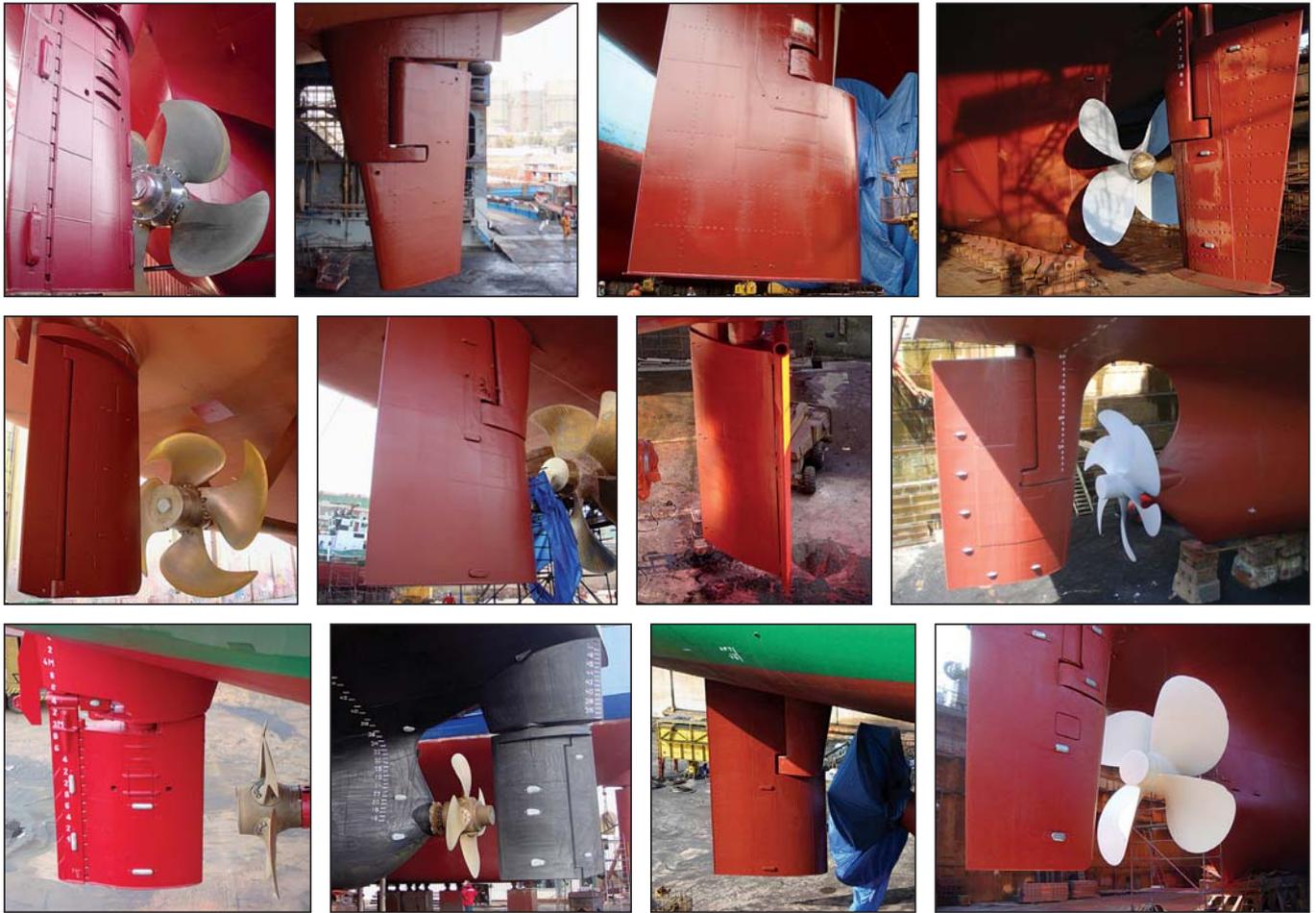


Thick layer of fouling on cruise ship after laying idle in the Caribbean for seven months.



Fouling removal from cruise ship without damage to the Ecospeed coating.

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 dry-dock followed by a full repainting, again and again.

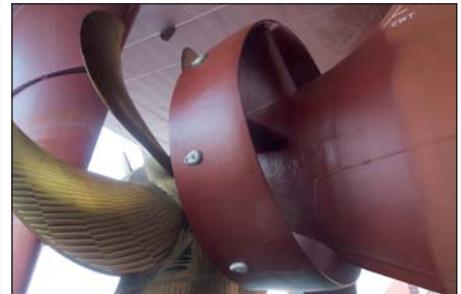
With an Ecoshield application no full repaint will be needed during drydocking. Ecoshield is guaranteed for ten years. At the most, minor touch-ups will be required.

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SUBSEA

PROTECTION AND PERFORMANCE



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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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