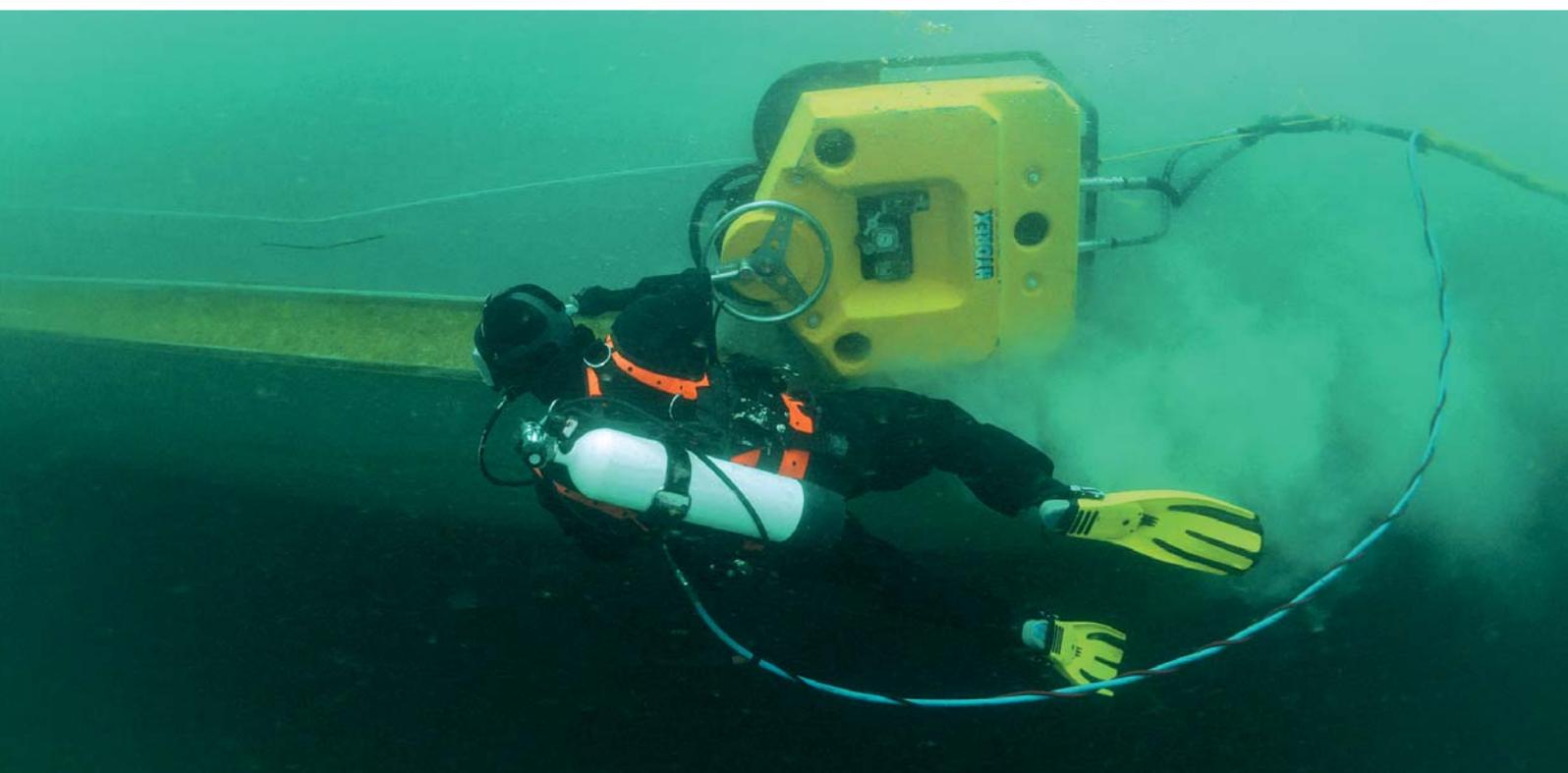


# SUBSEA

PROTECTION AND PERFORMANCE

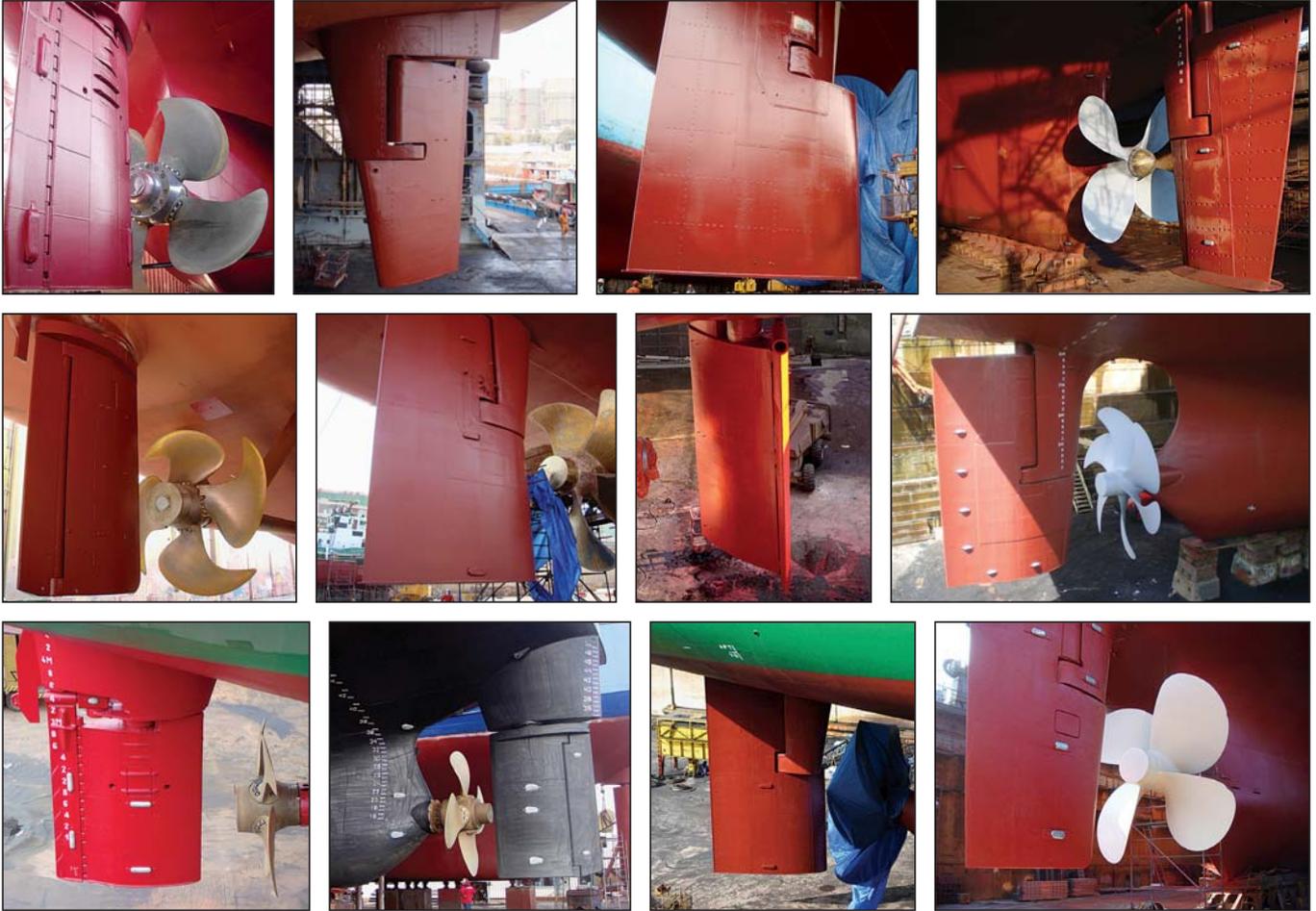
# NEWS

LETTER



**Easy washable**

# LASTING PROTECTION



**E**coshield 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®**  
THE DIAMOND STANDARD IN STEEL PROTECTION

# Easy washable

**O**ur coating systems offer many benefits to shipowners, ship managers and operators. In this article we take a look at how applying Ecospeed (or any other Subsea Industries coating) to a vessel can save much worry, time and hassle for superintendents and shipyards during dry-dockings, as well as save expenses for the owner.

Like all our products, Ecospeed is an extremely hard coating system with optimized hydrodynamics that can easily be maintained in service. This has a huge potential for reducing total cost of ownership of the vessel. When ships come out of the water after lengthy periods, there is no delamination of the coating from the hull, there are no paint blisters that would be indicative of anti-corrosive failure and the overall hull is still smooth. There are also the environmentally friendly aspects



*When Ecospeed is applied any build-up of paint layers is ended forever.*

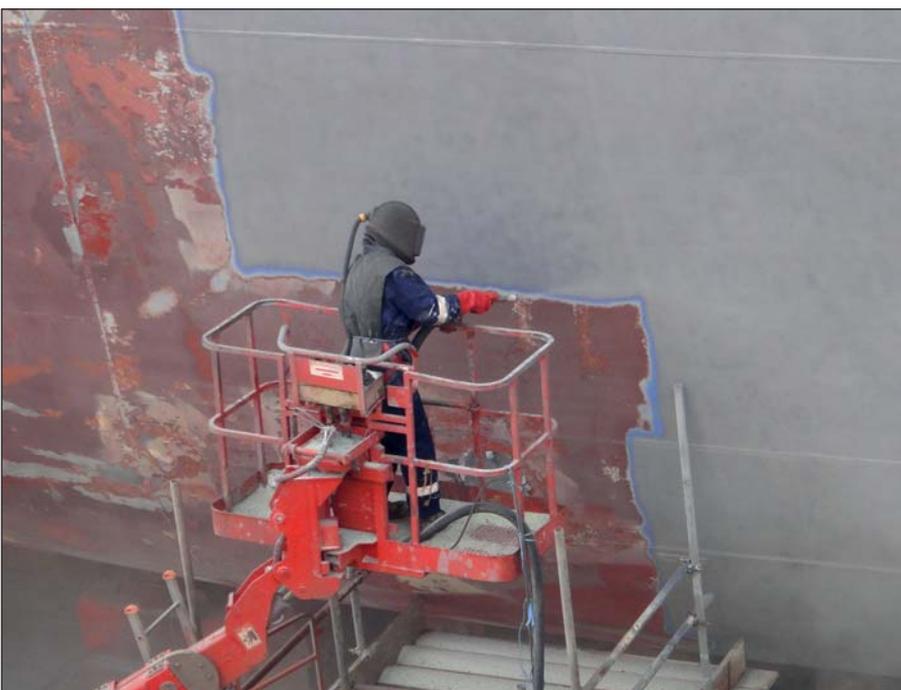
of the product. Studies done in the Netherlands and Canada have determined that in-water cleaning of Ecospeed produces no materials that are toxic to the marine environment.

## **High quality application: the secret of long term durability**

The effect of the degradation of a regular paint system and the build up of paint layers on the fuel efficiency of the ship is largely underestimated. There are very substantial benefits in stripping away all the old paint; immediate fuel savings of up to 20-30% are very realistic numbers.

When Ecospeed is applied this build-up of paint layers is ended forever. Once the hull coating has been applied you will never have to reblast again throughout the entire service life of the ship.

Surface preparation is the foundation of a coating system. As soon as you start tampering with the quality of the surface preparation, you will tamper with the total quality and as a consequence service life of



*There are very substantial benefits in stripping away all the old paint; immediate fuel savings of up to 20-30% are very realistic numbers.*



*Ecospeed can be used to protect the underwater hull of any vessel afloat today.*



*Applying Ecospeed is quite straightforward.*



*Ecospeed is an extremely hard coating system with optimized hydrodynamics that can easily be maintained in service.*

the coating. For this reason at least one Ecospeed coating inspector is present and available for the painters on every job. This is to check the conditions during the application process, but also to work together with them to help ensure a very easy and smooth application. Because the inspectors are closely involved with the application, they know exactly what has happened during the coating process. This allows them to approve the 10 year warranty that comes with an Ecospeed application.

We work with our own team of highly certified and qualified coating inspectors. These inspectors have been working with the company for many years. They are not only familiar with all our coating systems, but with a wide variety of other coatings. They are very important in the cooperation with the shipyard and they make sure that the product is applied according to the required standards. This guarantees that the results will be there for the shipowner for the next ten years and beyond.

### **Flexible and easy to learn application process**

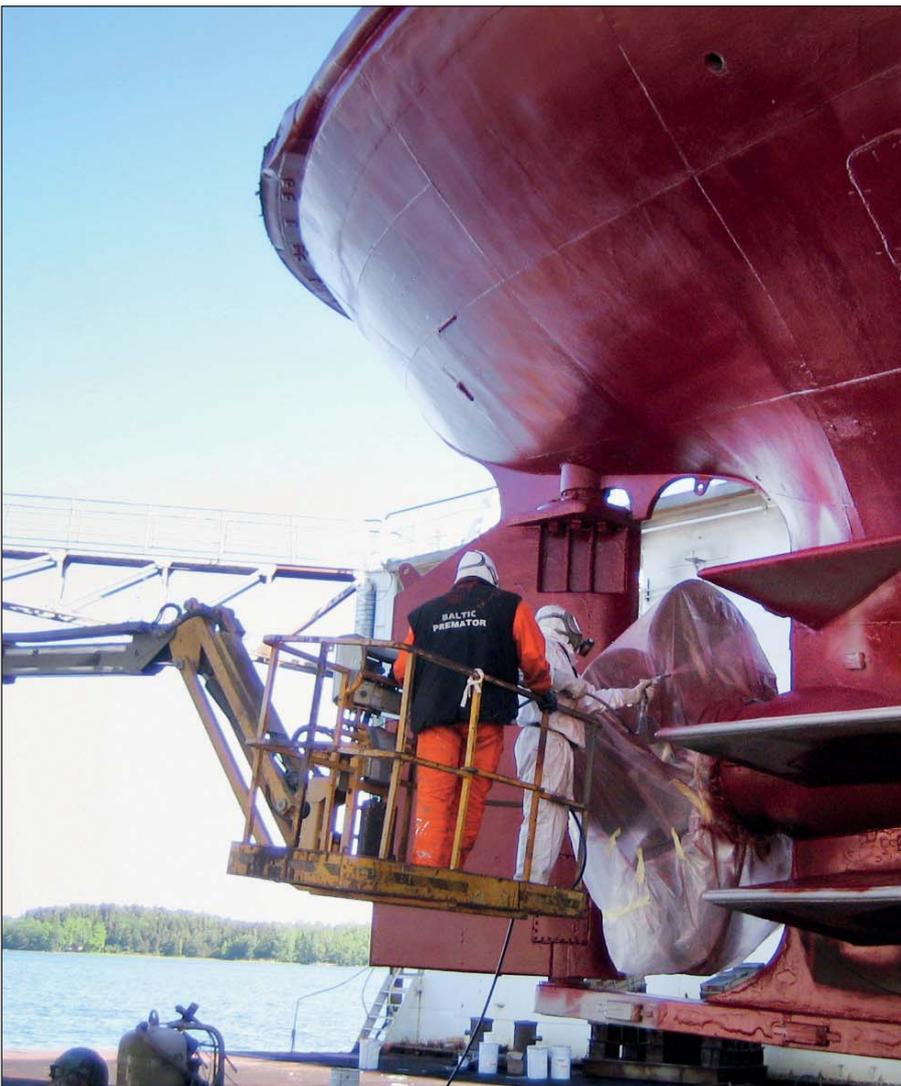
The high standards that are demanded for an Ecospeed application do not mean that learning to work with the coating is a difficult process or that the application itself is hard to schedule or carry out.

Applying Ecospeed is quite straightforward and in general it paints like any other paint. When the specifications are followed the application goes very smoothly.

The Ecospeed coating also offers a tremendous flexibility to the shipyard. The minimum overcoating time for all our coating systems is



*We work with our own team of highly certified and qualified coating inspectors.*



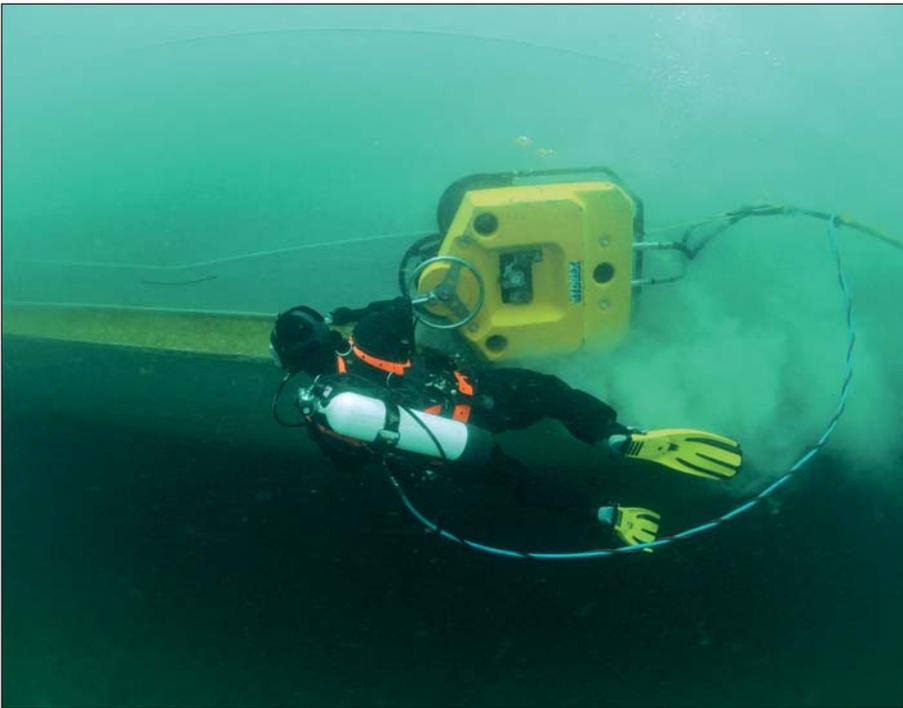
*The coating schedule can be adapted to that of the yard and it does not have to be the other way around.*

three hours. This means that for smaller surfaces such as rudders, nozzles or bow thrusters, the two coats of Ecoshield can often be applied in one single day.

During drydockings there is a lot more going on than just the hull coating, which can easily interfere with the planning of your project. Because Ecospeed has quick and flexible overcoating times, application can be scheduled around other work taking place. This results in minimal interference with other activities.

Ecospeed only requires two layers of 500  $\mu\text{m}$  each. This is a major advantage compared with other hull coating systems can easily have five or more coating layers that need to be applied and some of the newer silicone based hull coatings also consist of four to five layers of coating. Compared to this a two coat application is quicker, cheaper and more flexible.

The coating schedule can be adapted to that of the yard and it does not have to be the other way around. A traditional paint application schedule is defined by surface preparation and by the weather conditions, which are difficult to predict. The application of Ecospeed is easier to adapt to the application windows that become available. You can apply the coating quite rapidly on a prepared surface and the possible overcoat time ranges from three hours to very extended periods of time. Depending on whatever suits the owner's or the shipyard's schedule the second coat can be applied within a couple of hours or after a few weeks or even months.



*In-water cleaning of Ecospeed produces no materials that are toxic to the marine environment.*



*Fouling can easily be washed off in drydock with high pressure tools.*

## **Hassle-free planning of dry-dockings**

The durability of Ecospeed makes the planning of future drydockings far easier for the shipowner and the shipyard. Shipowners will not have to do any repainting beyond minor touch-ups. These can easily be done during a short drydock visit, which is in contrast to the full renewal of paint layers that is needed with other paint systems.

The amount of time many ships spend in drydock is directly related to (re)painting the underwater hull. When this can be taken out of the equation for the choice of location and season for drydocking, then the story becomes a lot easier for superintendents, for the shipyards, for everybody involved.

## **The washable coating**

The standard procedure for shipyards when a ship enters drydock is general cleaning of the ship hull to clear away any fouling and residues, especially salt residues that may adhere to the coating system. With Ecospeed the coating is always in a brand new, excellent condition after the high pressure washing. The surface texture is very smooth. It reveals without exception that Ecospeed does not need any additional paint layers.

There is also a very big difference between washing Ecospeed and other paints. With Ecospeed none of the paint material is lost. Only the fouling is removed. The coating stays on the ship instead of dispersing in the water and contaminating the shipyard and the surrounding waters.



*Ecospeed underwater maintenance is carried out with specially designed equipment.*

## Summary

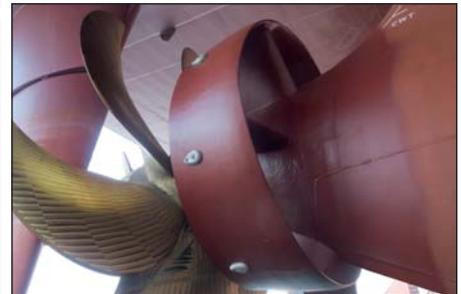
We hope that this article has helped communicate the practical aspects of applying Ecospeed, the differences between our coating systems and other underwater hull paints and the low cost-to-savings ratio that can be obtained by using Ecospeed to protect the underwater hull of any vessel afloat today. ■

**ECOSPEED<sup>®</sup>**  
SHIP HULL PERFORMANCE TECHNOLOGY



*Ecospeed has a huge potential for reducing total cost of ownership of a vessel.*

# SUBSEA INDUSTRIES



**S**ubsea 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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