

# SUBSEA

PROTECTION AND PERFORMANCE



Magazine

254



Ecospeed solves corrosion of scrubber pipes and outlets.....	4
Trade-shows and Conferences.....	7



# Corrosion damage very repair made ✓ easy



**S**ubsea Industries has a product for filling and building up a corroded and pitted steel surface to its original form prior to recoating with Ecoshield. Ecofix is as tough as the steel itself, machinable, and can be used to repair most pitting or corrosion damage on rudders, stabilizer fins, thrusters and other underwater gear.

Ecofix is used in combination with Ecoshield, the ultimate rudder protection coating. When a rudder or other piece of underwater ship gear has not been properly protected, the surface will become corroded.

Cavitation can cause severe pitting. The steel needs to be restored to its original shape with a smooth surface prior to recoating.

This is where Ecofix comes in. It is a superior, tested and proven filler. Because it uses the same basic resin as Ecoshield, the coating can be applied just one hour after the filler. The bonding and hardness are extraordinary. This is the effective alternative to very expensive fillers. And because it is part of the Ecospeed/Ecoshield family, it is fully compatible with our coatings.

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# Editorial

## New Book: The Corrosion Handbook

**T**he Corrosion Handbook for Shipowners and Operators – the use of special coatings to protect specific parts of ships from corrosion has just been published.

In just 54 pages with many photos and illustrations, I address the vast subject of how to protect specific corrosion-prone parts of ships from a highly practical point of view. Solutions and experience gained over 50 years of constant contact with the underwater parts of ships and boats has been distilled and condensed so that only proven, workable methods of protection are presented for the use of shipowners, operators, officers and crew.

This book does not discuss protection of the main hull of the ship, but rather concentrates on the real trouble spots: the rudder, thruster tunnel, nozzles and other running gear that



is so prone to cavitation damage; the inside of scrubbers as well as the scrubber overboard pipe and the area of the hull surrounding the scrubber outlet that suffers so badly from the highly corrosive effluent of the scrubber; the ice belt, boottop, decks, bulbous bow and other parts of the ship that are liable to suffer the effects of impact abrasion and wear; even the hoppers of dredgers are covered.

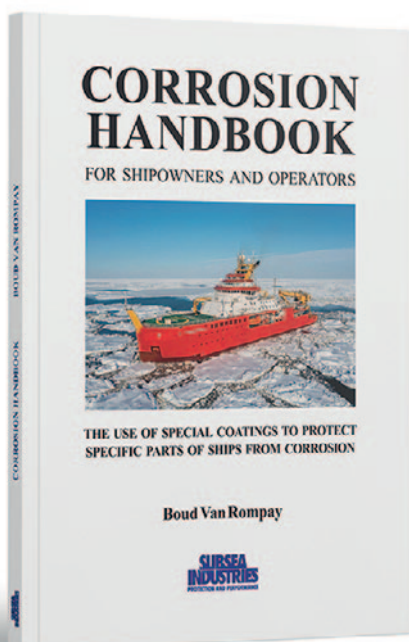
The book addresses the parts of the ship or boat that customers come to us for help with over and over again, simply because conventional hull coatings are not designed to protect these areas.

The Corrosion Handbook is a simple, practical solution to handling cavitation erosion, chemical corrosion and impact abrasion and wear,

based on a large number of successful applications.

The Corrosion Handbook is only available as a hardback book. Copies will be mailed out free of charge to our customers and others we feel would be interested in the subject. If you would like to receive a copy, please contact us with your needs and a mailing address so that we can send you the book.

Subsea Industries NV  
Boud Van Rompay  
Founder

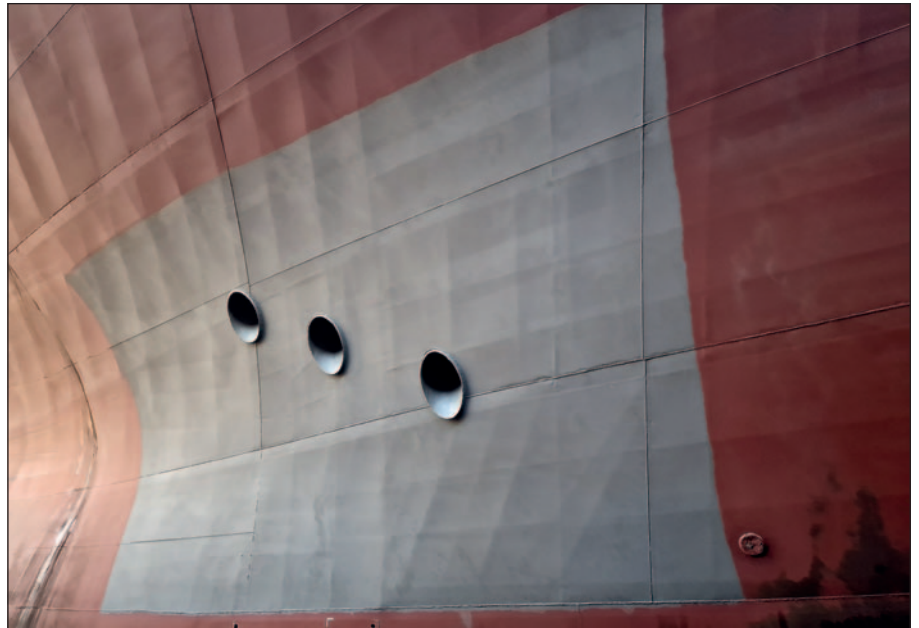




# Ecospeed solves corrosion of scrubber pipes and outlets

**R**ecently our Ecospeed coating system was applied on the scrubber pipes, recycle tanks, outlets and diffusers of a several container ships. 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.

Because of the tight regulations on emissions in the shipping industry, the installation of an exhaust scrubber system has become increasingly

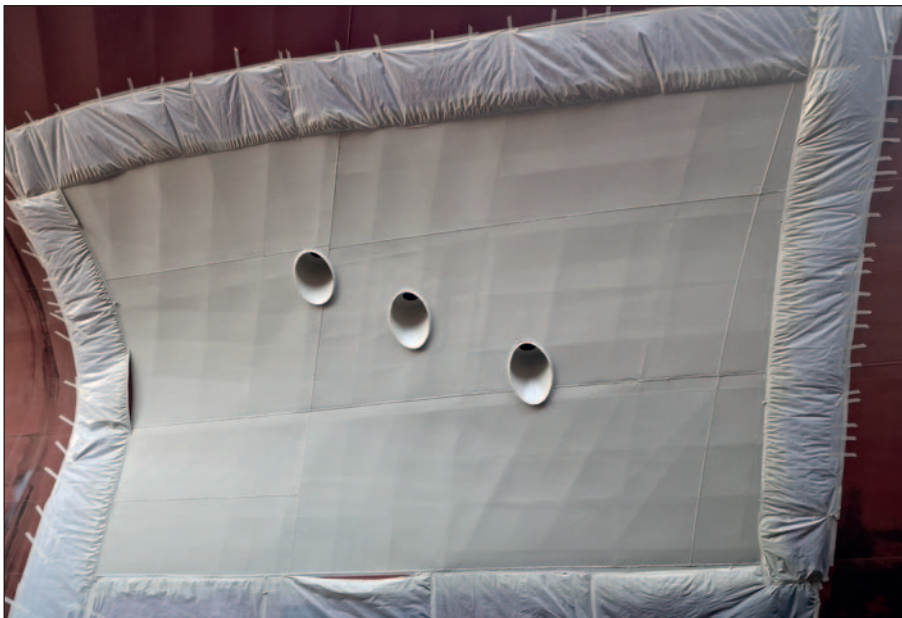


*Overboard area after surface preparation.*



*Application of first Ecospeed layer.*

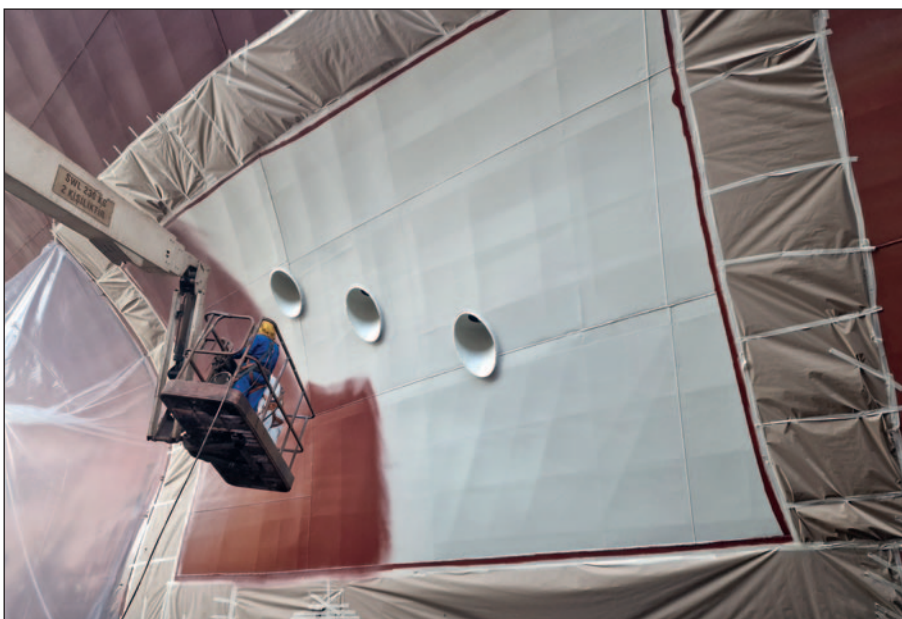




*Overcoating time in between layers can be as short as three hours.*



*Measuring the thickness of the first layer.*



*Application of second layer.*

widespread. Due to the highly corrosive nature of the effluents from scrubbers, this unfortunately has also led to an increase of corrosion damage on scrubber pipes and outlets which can result in water ingress into 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.

Ecospeed is a lasting, chemically resistant coating that will withstand the hazardous pollutants and protect the scrubbers for years to come.

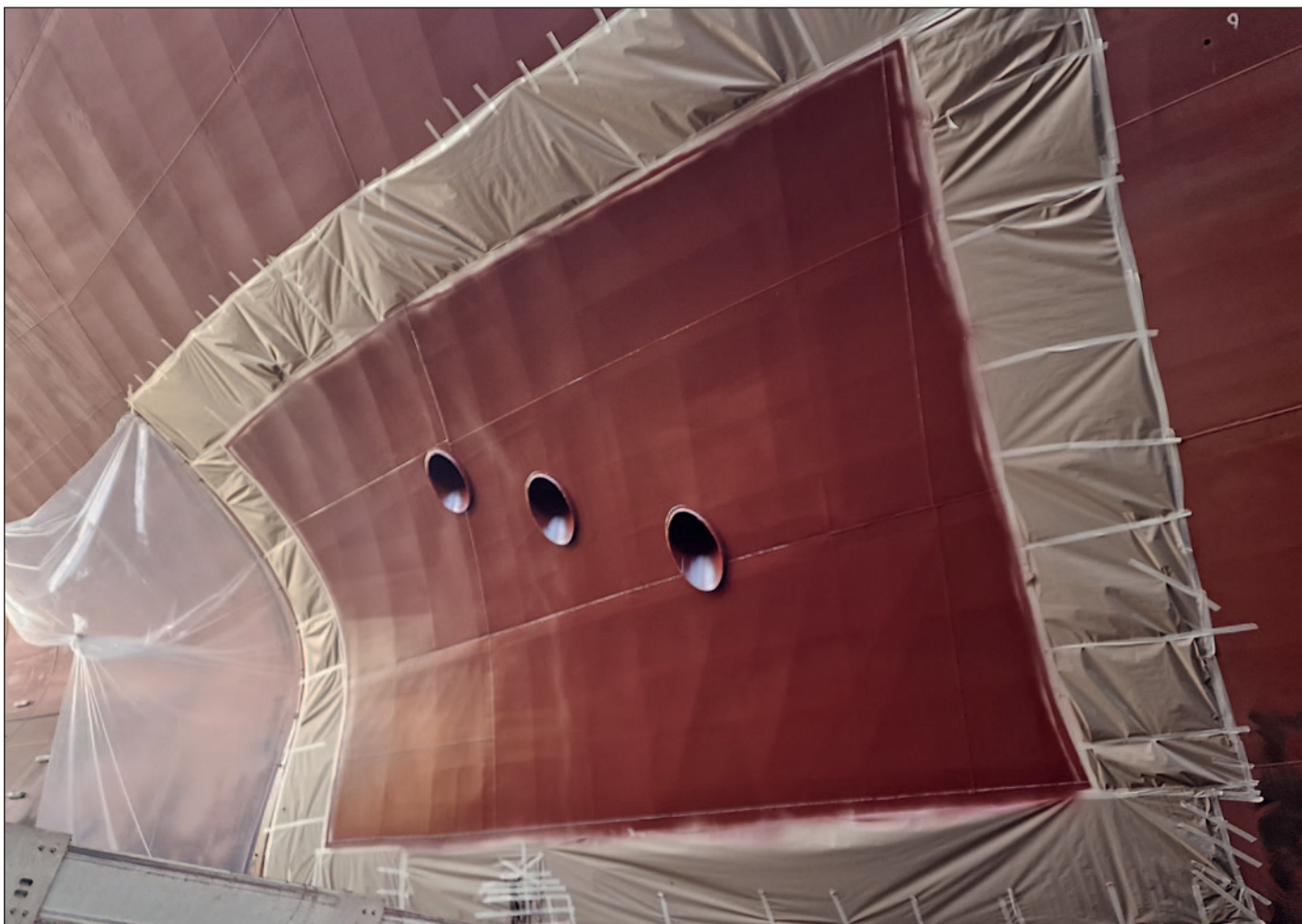
## Repairing corroded pipes

If an existing scrubber suffers corrosion damage, it is not too late to repair it. Subsea Industries' sister company Hydrex regularly replaces scrubber overboard pipes. This is done on-site without the ship needing to go to drydock.

In all cases, the new pipes installed by Hydrex are protected with Ecospeed. If no welding work needs to be carried out in close proximity to the coated area, the new pipes are coated in advance. If this is not an option, Ecospeed is applied after the new pipe is installed and all welding completed.

Pipes can also be replaced preemptively. If a pipe starts to corrode, a leak is just a matter of time. By performing the replacement before the leak occurs, a costly, unscheduled repair can be avoided.

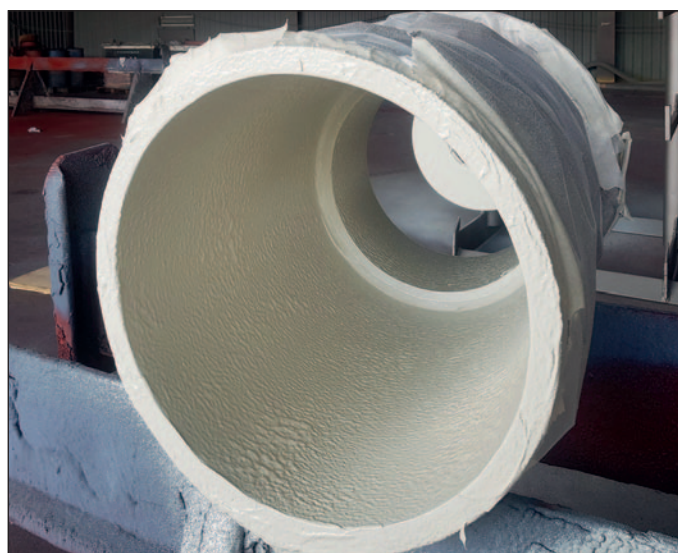




*No recoat will be needed during future dockings.*



*Recycle tank protected with Ecospeed.*



*Ecospeed is chemically resistant, making it ideal for scrubber pipe protection.*

## Conclusion

Several benefits make Ecospeed the perfect choice to protect scrubbers.

- The coating system is highly chemically resistant. Considering 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 time and money.
- It is a true biocide-free solution. The coating is 100% non-toxic so there is no negative effect on the water quality or the marine environment at any point of its application or use. ■



# Trade-shows and Conferences

**H**ydrex and Subsea Industries attend many of the major international shipping, offshore and related trade-shows, as well as some more specialized exhibitions and conferences. It's an excellent way to meet customers and partners in person and stay up-to-date with the current scene, as well as share our expertise and know-how.

Usually both Hydrex and Subsea attend these trade-shows together, as in the case of Posidonia, Nor-shiping, SMM and the other major general shipping industry trade shows. There are some that are attended by Subsea on its own, as in the case of the Workboat Show in New Orleans, the RINA Warship Conference in Bristol, UK, and Maritime Industry Gorinchem, Netherlands.

Sometimes Hydrex and Subsea share the booth of our local agent who is attending the show. When we went to Posidonia in 2022, a representative of both Hydrex and Subsea Industries joined our agents in Greece, N. Bogdanos Marine Bureau, at their booth. At Nor-shiping, both companies joined our Norwegian agents, GearConsult, at their booth.

On other occasions, Hydrex and Subsea attend trade-shows as part of the Netherlands Maritime Technology where our booth is part of the NMT Pavilion, as in the case of Europort 2023 in Rotterdam and SMM 2022 in Hamburg.

We also have our own separate booths, as in the case of Subsea

Industries at Workboat 2023 in New Orleans and Maritime Industry Gorinchen 2022 in Evenementenhal.

Subsea Industries also delivers papers to relevant conferences, such as the paper "Evaluation of a coating system that delivers top speeds, superior manoeuvrability and long-range capabilities for the sustainable future of warships," delivered by Martijn van Ruiten for Subsea Industries at RINA Warship Conference in Bristol, UK in June 2022.

Trade-shows and conferences have always played an important role in Hydrex and Subsea Industries keeping in touch with our customers and the maritime world and will continue to do so.

## International Workboat Show 29 Nov - 1 Dec 2023

The 2023 Workboat Show was combined with Underwater Intervention which was well suited to Subsea Industries exhibiting both coatings and underwater cleaning equipment. Subsea Industries was represented by Manuel Hof and Andi Hermans who manned a very professional and



easily accessible 37 m2 stand which was well-attended by divers and underwater intervention personnel on the cleaning equipment side, and

shipping and offshore public on the coatings side. The show was a great success with many existing customers and new prospects coming by.



## Posidonia 6-10 June 2022 N. Bogdanos

Hydrex and Subsea Industries participated in the N. Bogdanos Marine Bureau booth at Posidonia 2022 and the Metropolitan Expo in Athens, Greece.

Greece, is a top ship-owning nation, operating 20% of global and 50% of European capacity. The biannual Posidonia Expo attracts representatives from the whole shipping world and represents a multi-billion dollar opportunity for shipbuilders and for suppliers of marine equipment, information technology and the whole spectrum of marine services.

Posidonia 2022 featured 1,964 exhibitors, 103 countries and 28,892 visitors



Hydrex and Subsea Industries will be attending Posidonia 2024, again

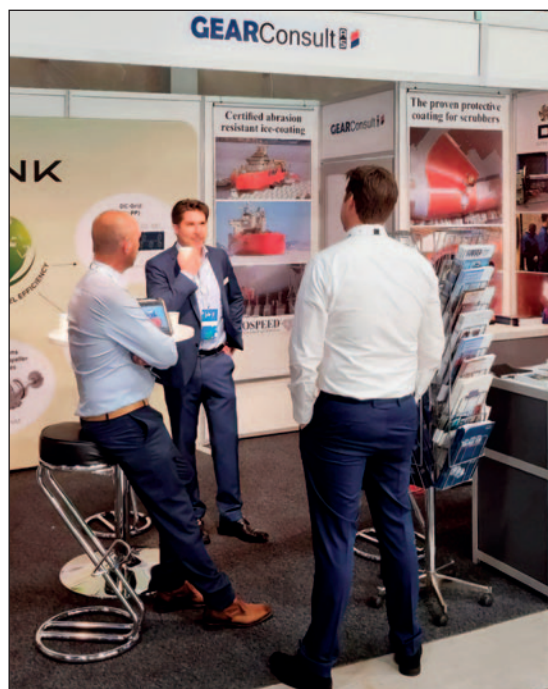
with our Greek agents, N. Bogdanos Marine Bureau.

## Nor-Shipping 6-9 June 2023

Again Hydrex and Subsea Industries attended, represented by Andi Hermans and Timo Verhoegstraete, sharing the Gear Consult booth hosted by Ludvig Nyquist, Gear

Consult CEO and our agent in Norway. Nor-Shipping 2023 in Oslo gave us the opportunity to meet a number of Norwegian and international customers and introduce

Hydrex services and Subsea Industries coatings and other products to many new prospects.





## **Europort 7-10 November 2023 in Rotterdam**

Rotterdam is on our back door – we even have an office there. Europort is the international maritime exhibition and meeting place for innovative technology and complex ship-building, so Hydrex and Subsea Industries fit in well with the exhibitions overall aims. With an average of 25,000 professional visitors and 1,000 exhibiting companies Europort belongs to the world's largest maritime meeting & knowledge sharing platforms. Hydrex and Subsea Industries attended as part of

the NMT pavilion. Since the exhibition is so close to our headquarters, a number of staff from both companies attended in rotation.



## **SMM 6-9 September 2022 in Hamburg**

Both Hydrex and Subsea Industries attended SMM as part of the Netherlands Maritime Technology (NMT) Pavilion and were able to connect with many existing customers as well as make new contacts.



## **Maritime Industry Gorinchem 2022**

Subsea Industries attended Maritime Industry 17-19 May 2022, in Evenementenhal Gorinchem. The trade show for the maritime sector celebrated its sixteenth edition. Every year, Maritime Industry hosts over 350 exhibitors and more than 10,000 professionals from the maritime sector. Subsea Industries was presenting Ecospeed non-toxic hull coating solution for leisure boats, inland shipping and the shipping industry generally. The Ecospeed coated sailing boat at the Subsea Industries booth was very popular with the visitors to the show.





## RINA Warship Conference 8 - 9 June 2022 at M. Shed in Bristol, UK

The subject of the RINA Warship conference in 2022 was, “Designing Warships of the Future.”

Martijn van Ruiten of the Hydrex Research Center and the Rotterdam Hydrex and Subsea Industries office delivered a paper “An evaluation of a coating system that delivers top speeds, superior manoeuvrability and long-range capabilities for the sustainable future of warships,” which was very well received.

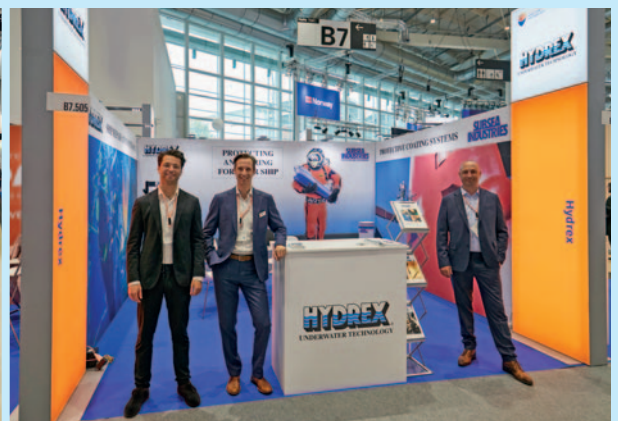


## Upcoming shows

Hydrex and Subsea Industries will attend several trade-shows this year. Those that are already planned are

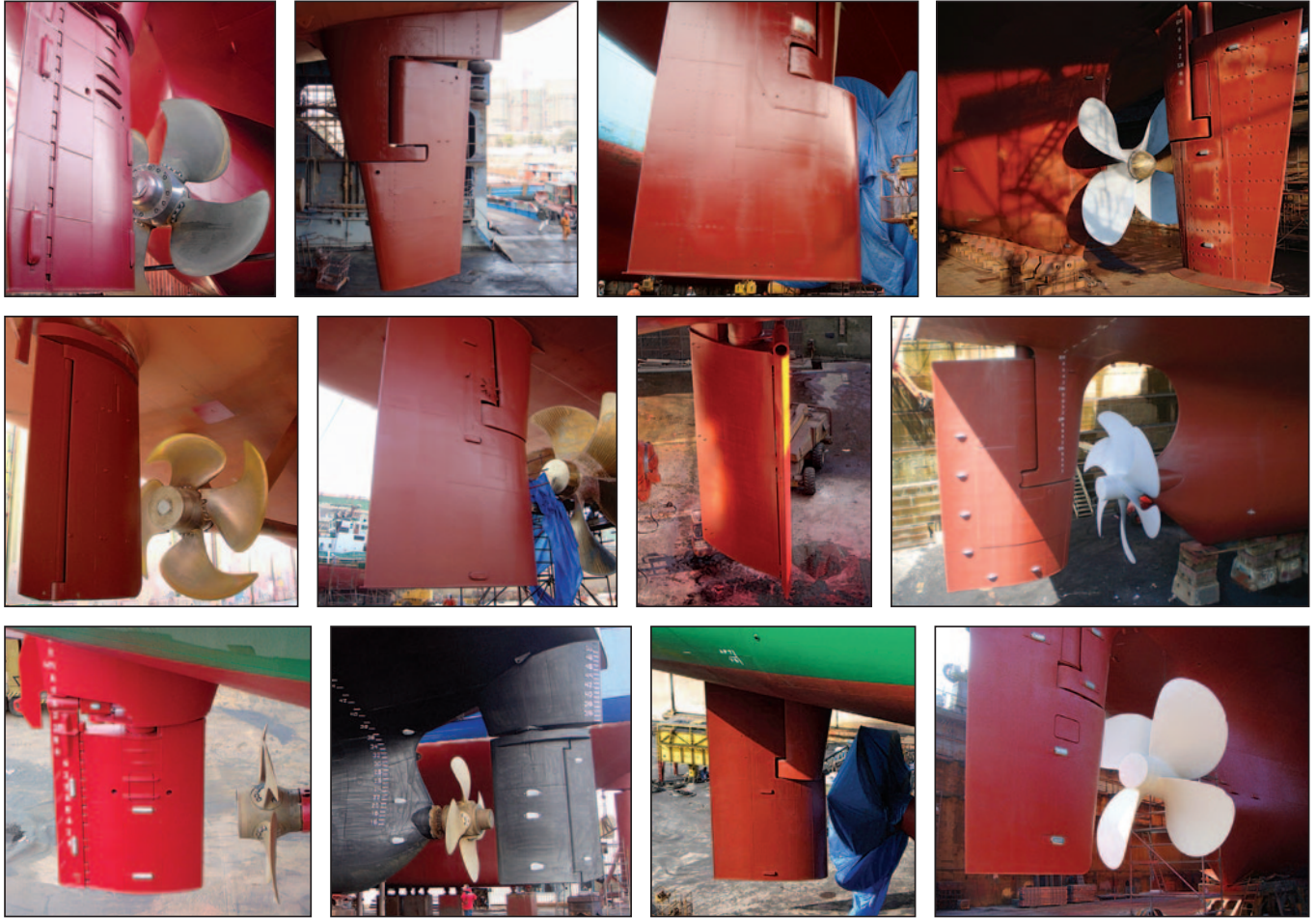
- Asia Pacific Maritime in Singapore from 13 - 15 March 2024 as part of the NMT pavilion. We will be joined by Palco Marine Services, our agents in Singapore.
- Posidonia in Athens, Greece, from 3 - 7 June 2024 where we will share the booth of N. Bogdanos Marine Bureau, our agents in Greece.
- SMM 3 - 6 September 2024 in Hamburg. Hydrex and Subsea will have a booth as part of the NMT Pavilion.

We hope to see you at these and any other trade-shows and conferences we attend this year. That's why we go! ■





# 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 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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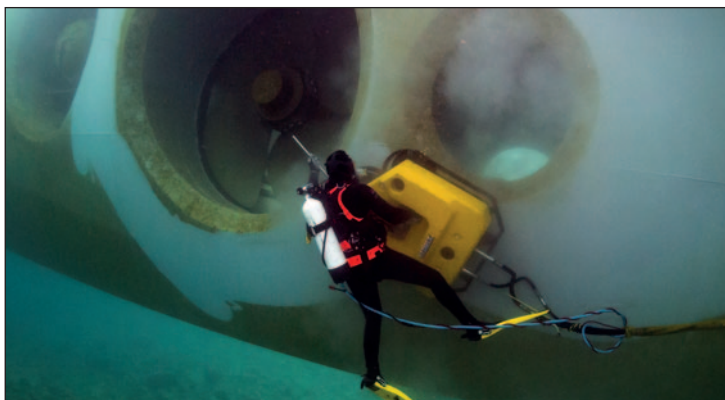
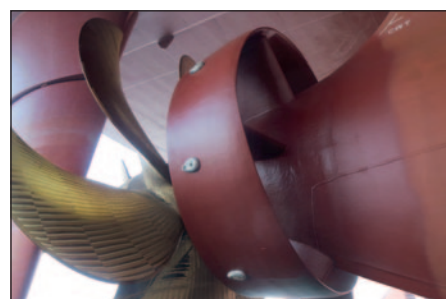
**ECOSHIELD®**  
ULTIMATE PROTECTION





# SUBSEA

PROTECTION AND PERFORMANCE



**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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