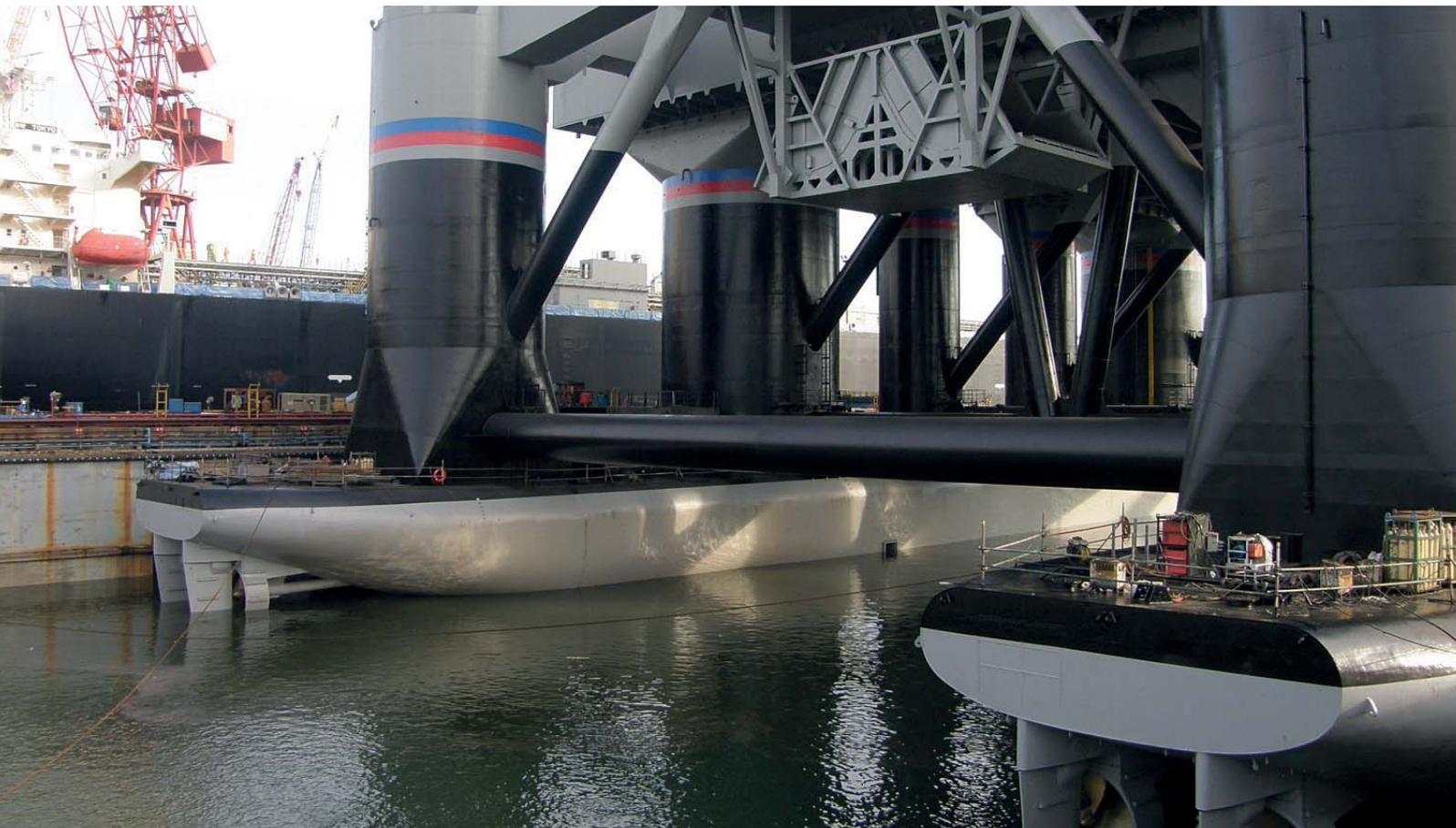


# SUBSEA

PROTECTION AND PERFORMANCE

# NEWS

LETTER



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# Save millions in drydock expenses and off-hire time



*Hull of cruise ship after 5 years with Ecospeed coating with no replacement or major repair. This is the state of the hull when the ship came out of the water, without any cleaning or touch-up in drydock.*

**When your hull coating never needs replacing or major repair, you can save a lot of money in drydock fees, off-hire time, materials and labor.**

Most hull topcoats are designed to be replaced once or twice every five years. The full hull coating scheme has to be fully replaced every 10 - 15 years down to bare steel. Over that time period, the coating degrades and

becomes rougher until it's no longer worth trying to patch it up. And it costs you a fortune in fuel to compensate for the additional hull friction.

Imagine a coating that's guaranteed for 10 years and is expected to last 25 without replacement or major repair. A coating that gets smoother over time, not rougher.

Imagine coming into drydock after 3 or 5 years and finding that your hull coating only requires a few minor touch-ups and doesn't even need to be washed off.

Just think how much money you will save.

Call us today for a quote to convert your hull to Ecospeed or start off right, with Ecospeed, on a new build.

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# Why Ecospeed?

**W**hat is Ecospeed? Ecospeed is an underwater ship hull protection and fouling control system. It consists of a tough, long-lasting, glassflake reinforced coating combined with routine in-water cleaning/

conditioning. One application lasts the life of the hull. It does not degrade but becomes smoother over time with regular in-water cleaning. It can be used on any ship or submerged structure, steel, aluminum or

GRP. It has the potential of great financial savings. It is designed with environmental protection in mind and is entirely environmentally safe.

## Ultimate hull protection

### Complete corrosion protection

- Hard, tough, glassflake-based
- Flexible, very strong adhesion, thick coating
- Impermeable and impenetrable

**Long-lasting – one application lasts the life of the ship. No reapplication needed, only minor touch-ups in drydock.**

- 10-year extendable warranty

**Cleanable in the water**

**Gets smoother with underwater hull cleaning**

### Ice class coating (certified)

- Abrasion resistant
- Low friction
- Stays on when other coatings are removed by the ice



## Ecocomical benefits

### Enormous fuel savings (10 - 25% compared to conventional AF and FR coating systems)

- A smooth hull
- No long term paint degradation
- Becomes hydrodynamically smoother over time with routine cleaning
- AF and FR coatings typically degrade over time, with 20 - 45% fuel penalty after 10 - 15 years
- Easy to keep clean of fouling (can be kept to a light slime at most)

### Reapplication costs saved (no reapplication needed)

### Drydock savings (fewer and shorter drydockings since no need to repaint)

### Ease of application

- Two homogeneous coats, 500µm each, no primer, mid-coat, tie coat or any other coat)
- 3 hour minimum overcoat time, no maximum
- No special environmental requirements
- No special equipment needed

### Easy and quick to repair in drydock

### Does not interfere with other work in drydock

### Greatly reduced total ownership cost

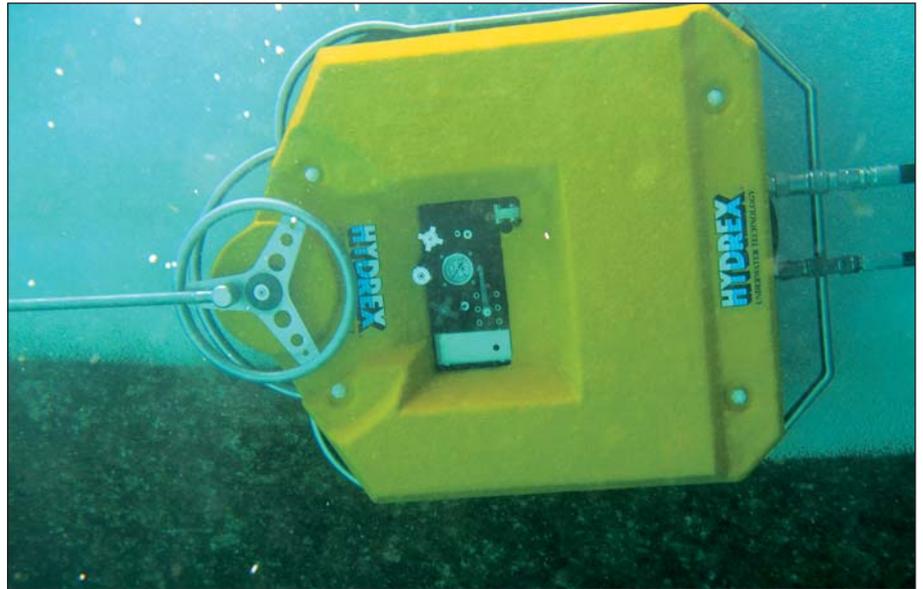
**ECOSPEED®**  
SHIP HULL PERFORMANCE TECHNOLOGY

# Ecospeed, the coating for ultra long lay-ups

**A**s 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 al-



*Even after long stationary periods the underwater hull of a vessel coated with Ecospeed can easily be cleaned underwater.*

lowed 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 ship owners 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.*

# Ecoclock long-lasting protection for offshore hulls now available

**E**coclock is a new product from the makers of Ecospeed and Ecoshield. It is designed to protect offshore units for decades without the need for drydocking. Increasingly, floating production 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 bio-fouling that accumulates can be removed successfully and safely for UWILD and to reduce weight. Ecoclock is the answer to that challenge.

For decades it has been known that glassflake reinforced hard coatings last longer, are tougher and more resilient, need less repair and replacement than any other type of hull



*EXMAR chose Ecospeed to coat the hull of its first-of-a-kind floating LNG liquefaction, and storage unit, the Caribbean FLNG.*

coating. Soft coatings such as biocidal antifouling and foul-release coatings do not hold up well. They need to be repaired or replaced often which is not good news for ship-owners and operators and particularly offshore operators who need to keep their ships out of drydock. Their antifouling or foul release properties require that the ship move

through the water at relatively high speed. On stationary vessels the fouling simply builds up.

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

As long as it is standardly applied, Ecoclock comes with a 10, 15 or 20 year warranty, if the coating is maintained according to the specifications. The thickness of the coating can be increased to extend its longevity. Even if minor mechanical damage does occur, because of the superior adhesion of Ecoclock no undercreep will occur. ■



*Ecoclock is an extremely tough and durable coating designed to remain in excellent condition for 15 - 25 years without drydocking, repair or replacement.*

**ECOCLOCK**<sup>®</sup>  
LIFETIME CORROSION PROTECTION

# Ecoshield, the only coating that offers lasting rudder 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.



**ECOSHIELD®**  
THE DIAMOND STANDARD IN STEEL PROTECTION

# Underwater Cleaning Equipment

**I**n harsh underwater environments it is essential to have sturdy and reliable equipment. The unique design of our underwater cleaning machines provides the

efficiency and durability required in such conditions. All our systems are carefully designed with operational safety as a prime consideration. A range of systems is available

for various applications. All our cleaning units are offered separately or supplied with a complete support system including umbilical, tools and hydraulic power

## MC 111

The MC111 is our smallest model specially designed for cleaning and polishing ship hulls, propellers and thrusters. The MC111 is very handy and can be easily taken into difficult corners and niches while still obtaining the desired results.



## MC 131

The MC131 is a compact unit designed for cleaning all kinds of marine fouling from yachts and smaller ships to offshore oil & gas platforms. The brush rotation speed is adjustable by the diver so as to achieve an optimum hourly cleaning rate.



## MC 212

The MC212 is designed for cleaning light, medium and heavy marine fouling from ship hulls, offshore oil & gas platforms (concrete or steel), jetties, piles, intakes and internal pipelines. The equipment has a self-balancing feature, which allows the operator to use the tool safely and effortlessly for long periods.



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# SUBSEA INDUSTRIES



**W**e have changed the name of our monthly magazine. Up until now it was always called the Ecospeed Magazine. However, over the last few years the range of products that are covered in this publication have been growing. To represent this we felt that a name change was in order. And what better name giver than the company that has developed all these products: Subsea Industries NV.

Our ship hull performance system Ecospeed is off course still an important part of the content of the magazine, but over the last couple of years there has also been a lot of attention for Ecoshield, our coating for underwater running gear. Last year Ecolock, designed for offshore units, joined the ranks. Besides our award winning coating family of hard hull coating systems there is also our evolving line of underwater

hull and propeller cleaning equipment.

Whether it is the range of underwater cleaning equipment or the various 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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