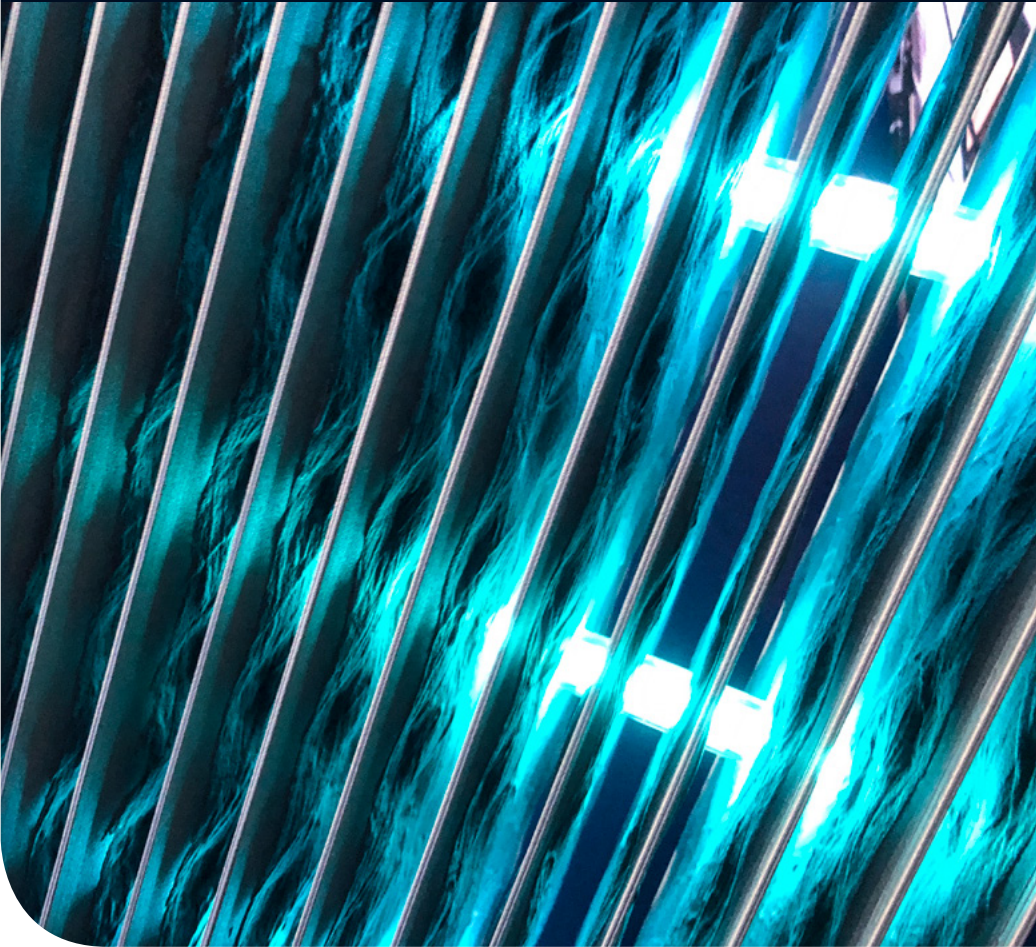


CORROSION

STEEL GOING STRONG

UV-C Cooler



UV-C Cooler

CORROSION's revolutionary, environmentally friendly marine growth prevention solution

In an exclusive cooperation with high-end partners like Philips, we've developed a non-chemical alternative solution for the prevention of marine growth. We're proud to introduce our UV-C Cooler: A highly efficient cooler that's protected against fouling through the use of UV-C light.



In 2017, CORROSION began tests using UV light as a marine growth protection mechanism. The results of our work are extraordinary and far-reaching. We have used 'pillow plate' technology to achieve this goal. The result is that two existing and proven technologies have been combined in one product. The UV-C technique to prevent fouling and the pillow plate technique to provide cooling. The result is a ground-breaking innovation, patented by Philips.

Benefits:

- Environmentally friendly
- Higher heat transfer efficiency due to pillow plate technology
- Robust construction
- 24/7 protection when at sea and for laid-up vessels
- No risk of galvanic corrosion due to the use of mild steel
- Backwards compatibility with existing box coolers



UV-C light

Ultraviolet light in its C spectrum is a green way of protecting the cooler against all types of marine growth. And what's more, it is highly effective in virtually all circumstances. The bulb itself is mounted in a quartz tube that can endure high pressure. This ensures that the risk of breakage is minimal.

**'An innovation that fits today's
need for sustainable solutions'**

Felipe Leon Morales, Manager Laboratory

The UV-C light used in this system breaks down the cell structure and DNA of all the different types of fouling which tend to settle on pillow plates or in the direct surroundings of pillow plates. But because the UV-C coolers are mounted inside the sea chests, they are safe for the other sea life. In addition, the sea chest areas within the range of the UV-C light also remain free of fouling!

Pillow plate UV-C Cooler

The UV-C pillow plate cooler can endure rough circumstances at sea. The coolers are installed in the sea chests with an inlet and outlet grid. When the vessel is sailing, seawater enters through the inlet grid and passes through the pillow plates. Here the cooling takes place and the heated seawater then exits the sea chest through the outlet grids. When the vessel is stationary, cooling is achieved by a natural convection flow due to the sea water close to the pillow plates increasing in temperature. The heat transfer is achieved by a controlled flow of cooling liquid through the pillow shaped plates. The pillow plate heat transfer technique has a higher efficiency than the currently used tube technique. This pillow plate technique is proven technology which has been used for decades in other industries.



UV-C Cooler construction materials

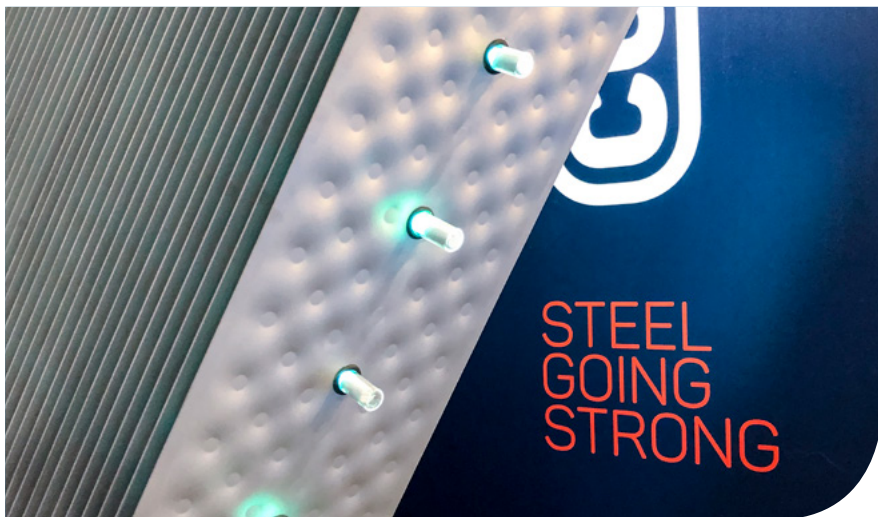
The cooler is made of carbon steel and coated with a UV-resistant 2 component epoxy paint. This combination, together with the use of sacrificial anodes, ensures that no galvanic corrosion will occur, even if impact occurs and the coating is damaged.

Retrofit

The UV-C Coolers are not only the best solution for new building vessels but are also interchangeable with traditional box coolers. Due to their higher efficiency, the dimensions of the UV-C Coolers will fit in the existing available space. The in- and outlets on top of the cooler are tailor-made to fit the original piping without needing major adjustments.

Finally, this UV-C Cooler also offers a solution against fouling for vessels that are laid up for extended periods of time.

We're proud to introduce this new and innovative marine growth prevention solution. Now available at CORROSION. For more information, please visit www.corrosion.nl or call directly +31 (0)79 593 1295





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