

CORROSION



ICAF – MGPS

Impressed Current Anti-Fouling



ICAF - MGPS

Optimum protection against all types of marine fouling.

CORROSION has been in the business of protecting offshore constructions and vessels since 1993. We know the field and the players. Our Impressed Current Anti-fouling Systems (ICAF) and other Marine Growth Prevention Systems (MGPS), guarantee optimum protection against all types of marine fouling on just about anything located in (sea)water. Box coolers, seawater inlet systems, submerged pump units, and various industrial applications as well.

High quality anti-fouling prevention systems prove their worth, especially over time. They keep your assets working at their fullest potential and keep you at an advantage in the move towards sustainable solutions. Both of these aspects are important in today's world and bring financial benefits with them as well.



CORROSION is a fully licensed producer and supplier of Cu-anodes and biocidal products

Certification

Getting certification is a definite advantage nowadays. Vessel owners, operators, and shipyards who purchase systems, equipment, and spare parts that comply with the increasingly strict regulations*, will greatly benefit, especially as time goes on. The EU, and other parts of the world, will continue clamping down on the use of biocidals, the chemicals used to control organisms. Good maintenance and the use of compliant systems have their pay-off now. And will even more so in the (near) future.

*IMPORTANT NOTICE! New legislation has been implemented, affecting the current and future maritime market. Since 1 September 2015, ECHA (European Chemical Agency) Article 95 Regulation no. 528/2012 (EU Biocides Regulation) forbids the sale and use of biocidal products in the EU unless they are provided by a licensed product supplier from the approved Article 95 list. CORROSION Maritime is licensed under this regulation to both produce and supply Cu-anodes as biocidal products.

The **operating** principle

CORROSION's anti-fouling systems rely on the effect of dissolved copper on early life stages of fouling organisms. The free hydrated copper ion, which is the most active anti-fouling fraction of dissolved copper, blocks uptake sites for micro-nutrients that are critical for the survival and growth of fouling organisms. Surfaces are kept clean because fouling precursors are unable to colonize and grow on the target surfaces.

The operating principle of ICAF systems is based on an artificially triggered voltage difference between copper anodes and integrated steel plate cathodes. The ICAF power control unit ensures that the copper anodes add precisely the correct number of copper particles required to the seawater. The best protection is guaranteed and the amount of copper dissolved is minimized. This prolongs the service life of the anodes.

As experts, CORROSION can ensure long-term, optimized system operation. In addition, all data can be downloaded to an external computer and transferred through the Internet. Easy to check. Easy to adjust. Our smart anodes are then able to communicate with the control unit, making sure they're always in the right position with the right amount of current.

CORROSION has been in the business of protecting sea water constructions and vessels since 1993.



Advantages of the ICAF power control unit

- Automatic correct installation check including alarm function
- Touch screen operation in all main languages
- Remaining service life indication of the anodes (+alarm function)
- Interactive with seawater pumps via several digital inputs to save anode material
- Connected through internet
- Constant connectivity with intelligent anodes.
- History of all data in years
- Low voltage/short circuit including alarm function
- Polarity check for anode identification including alarm function
- Connectable to the Ship Management System via RS485 and RS232 (optional)
- Service code for optimum system wperformance, traceability, system protection and service



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