

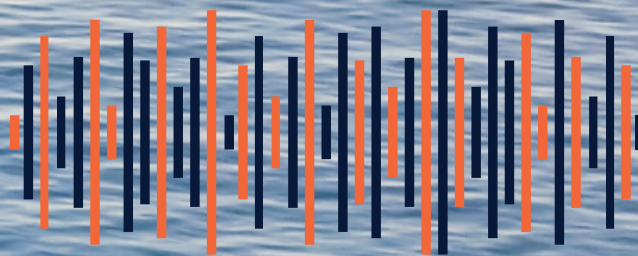
**CORROSION
GROUP**

USAF



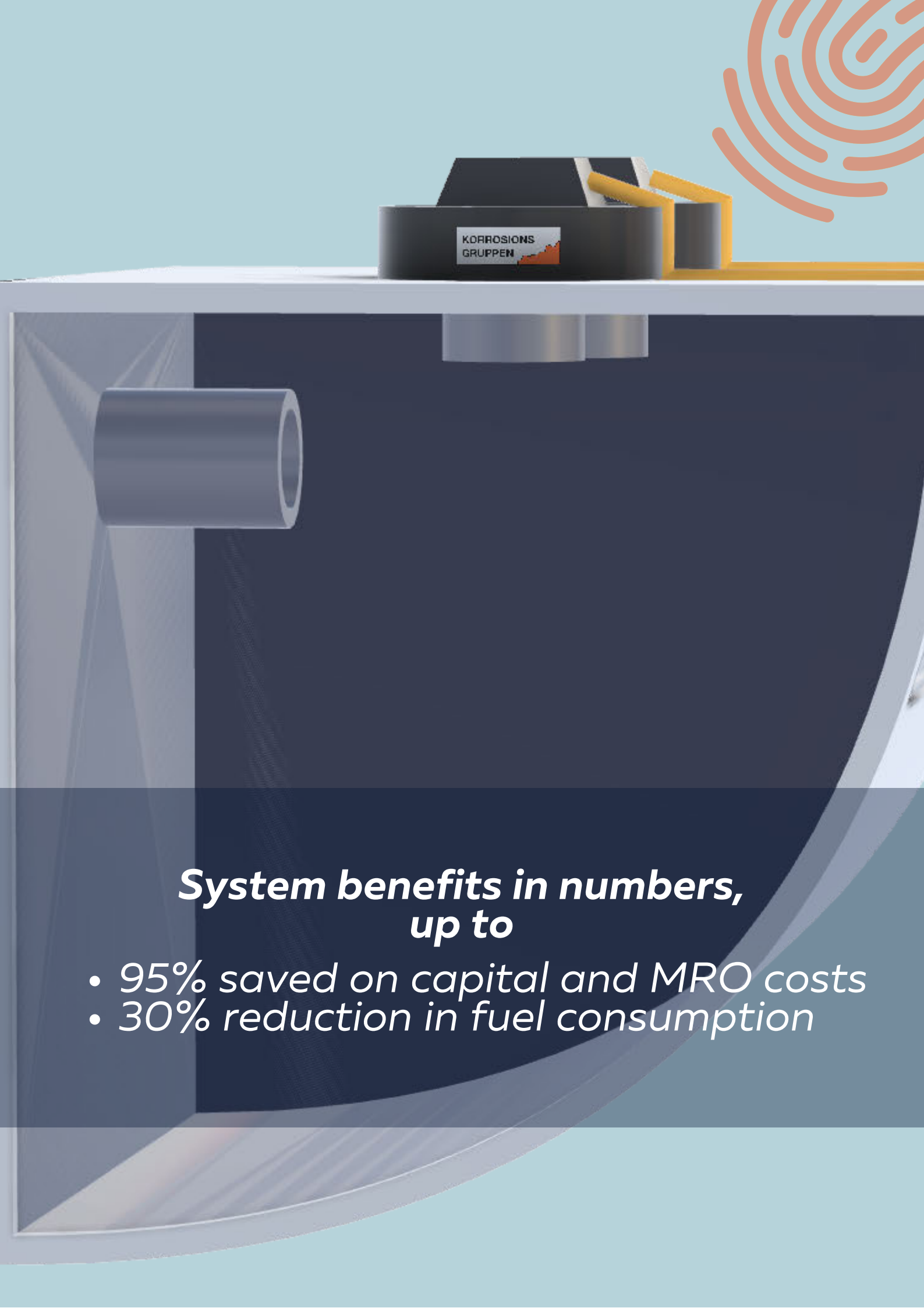
*Future-proof your vessel with our
Ultrasonic marine growth prevention
systems*





Maximize performance with Ultra sonic technology

Our Ultra sonic Anti-Fouling (UAF) marine growth prevention systems use high-frequency sound waves to prevent marine organisms from growing on a vessel's hull and underwater surfaces. It is an environmentally friendly and effective solution that does not involve toxic chemicals.



KORROSIONS
GRUPPEN

***System benefits in numbers,
up to***

- 95% saved on capital and MRO costs*
- 30% reduction in fuel consumption*

Ultrasonic Technology's Solution to the Costly and Harmful Effects of Marine Fouling Across Industries



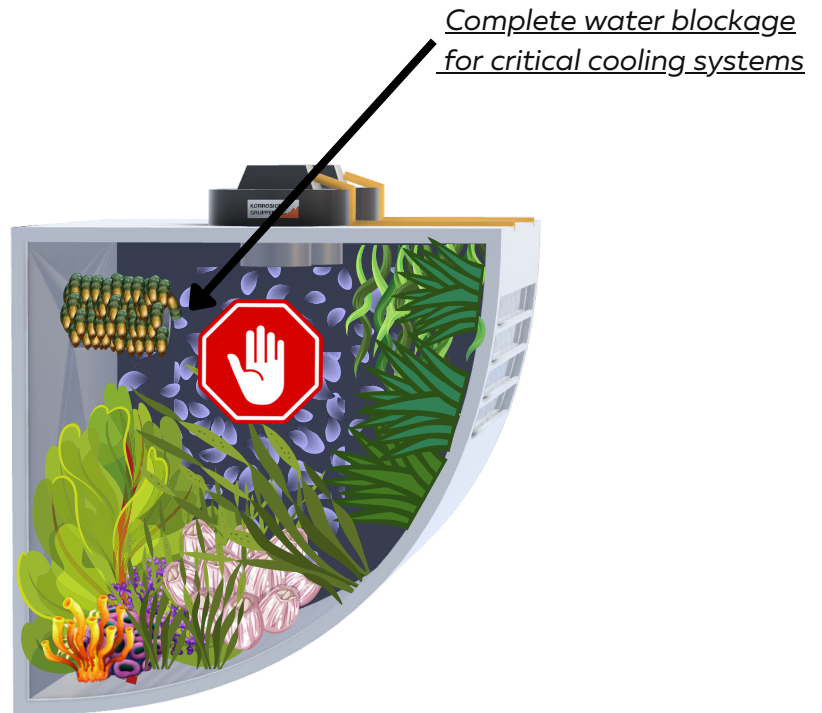
Application areas:

Externally

- Vessels & Hulls
- Propeller shafts & propellers
- Wide array of surfaces

Internally

- Heat Exchangers
- Box-coolers
- Cooling Systems & Fire fighting systems
- Sea Water Lift Pumps
- Pipe works



The Hazards of Not Having Marine Growth Prevention in Your Box Cooler

Without a marine growth prevention system in the box cooler, marine fouling can build up on the heat exchange surfaces and reduce the cooler's efficiency. This can lead to higher temperatures and reduced cooling capacity, potentially resulting in equipment damage and increased fuel consumption. In addition, the accumulation of marine growth can create safety hazards, such as reduced maneuverability and stability. The costs of maintenance and repairs can also increase significantly without a prevention system in place. It's crucial to prioritize marine growth prevention in the box cooler to avoid these hazards and maintain optimal performance and safety.



Revolutionizing Marine Growth Prevention: The Game-Changing Benefits of Ultrasonic Technology



95% REDUCED CAPITAL & MRO COSTS

Compared to impressed current anti fouling systems, there is no expensive copper anodes to exchange. There is no drilling, welding or downtime involved.



30% SAVINGS ON RUNNING COSTS

Steering gear, propulsion or a hull that is subject to fouling can increase fuel consumption by up to 30%.



0% IMPACT ON THE ENVIRONMENT

No more biocides leaching out into the environment or microplastics from coatings that are harmful to marine mammals.



How Ultrasonic Marine Growth Prevention Works: Using Sound Waves to Prevent Marine Fouling

Ultrasonic marine growth prevention is a cutting-edge technology that uses sound waves to prevent the accumulation of marine growth on ships.

The system emits high-frequency sound waves that disrupt the growth process of marine organisms, preventing them from attaching to the hull and equipment of the ship.

Creating a Non-Stick Surface

The ultrasonic system works by creating a pattern of high-frequency sound waves that create a non-stick surface on the hull and equipment of the ship. This non-stick surface makes it difficult for marine organisms to attach and grow, preventing the accumulation of marine growth.

Easy Installation and Sustainable Benefits

The ultrasonic system is easy to install and requires minimal maintenance. It operates continuously, providing round-the-clock protection against marine fouling. By preventing the accumulation of marine growth, the ultrasonic system can help improve equipment efficiency, reduce maintenance needs, and lower costs. It's a sustainable and eco-friendly solution that offers a safe and effective alternative to traditional methods of marine growth prevention.

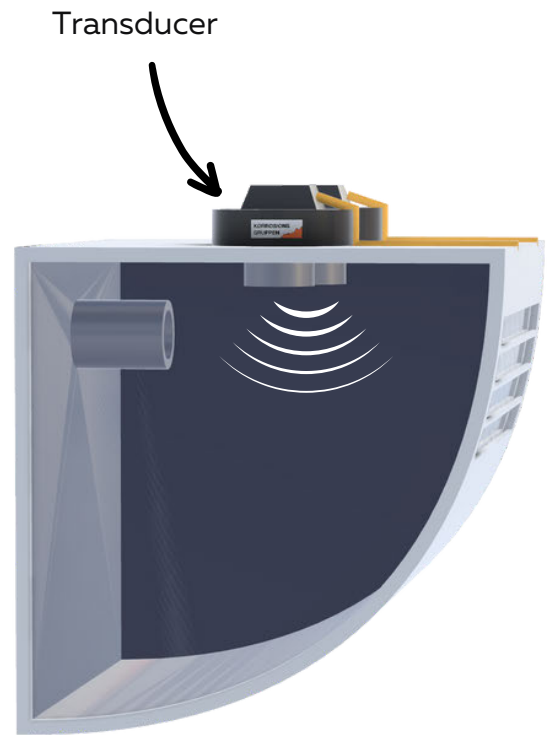
System

100% effect 0% compromise

Corrosion Group creates custom control cabinets and cables that are flexible and built to meet our clients' needs and industry standards. Our experienced engineers provide a complete design and installation service, managing everything from transducer installation to cable management and system commissioning.

Our maintenance-free systems come with an 18-month warranty on all parts.

Contact us today to learn how we can help with your Marine Growth Control Prevention.



Easy installation, Plug N' Play

- No drydocking
- No hull fittings
- No anode changes
- No expensive downtime



USAF VS ICAF



Comparison on a 4 box cooler setup

Parameters	ICAF	Corrosion Group USAF
System Cost	Higher	Lower
Hull penetration	Yes	No
Consumables	Yes	No
MRO	Higher	Lower
Total cost	High	50% less

Switching to Corrosion Groups ultrasonic protection is a no-brainer for commercial vessels with a operational lifespan of 15 years. Not only does it come with lower capital costs, but it also eliminates the need for costly ICAF sacrificial copper anode replacements. By making the switch, you could save up to \$226,900 on just 4 box coolers, with additional savings from reduced drydock and downtime expenses.



Got Copper? 2026 Biocide resubmission is approaching

Ultrasound has already demonstrated its antifouling abilities in the food, brewing and aquaculture sectors. However, by 2026, any marine antifouling system that employs a biocide will have to undergo a lengthy and costly approval process.

As a result, industry experts predict that many of the current biocide systems will be phased out before 2026, as demand for biocide-free Marine Growth Prevention Systems (MGPS) increases.