Identifying Corrosion

Marine Protection Systems™

Understanding the type of corrosion activity on a vessel is the most cruicial step in providing an effective solution and prevent further corrosion activity.

Galvanic Coupling

Dissimilar metals exposed to the same electrolyte (water) makes a galvanic coupling and galvanic corrosion results.

Solution: Ensure all fittings are of the same material, or bond to an anode for cathodic protection.

Alkaline Degradation

Wood rot caused by overprotection from anodes destroying the cellulose fibres in wood.

Solution: Install only Maddox cathodic on timber vessels where anode protection is required.

Engine Components

Most often caused by stray current from an engine or on board electrical component. Common causes - lack of galvanic isolation, alternators, battery chargers and more.

Solution: Seek professional assistance.

Dealloying - Pinking

Bronze is a composite alloy metal. When not properly connected to an anode, the alloy will leach from the bronze and leaving it weak, brittle and pink.

Solution: Improve bonding/ connection to an appropriate anode.

Paint Blasting

Most commonly seen on stainless steel trim tabs, swim platforms or marlin board supports. Caused by over protection.

Solution: See Anode Selection Guide and seek professional assistance for best protection levels.

Poor Bonding / Electrical

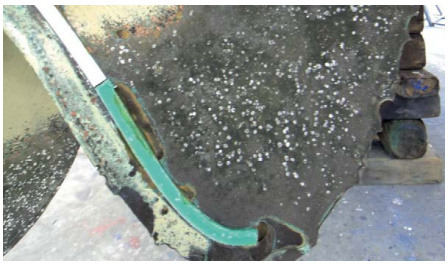
A common problem - Insufficient wire size, not tinned or fine strand, localized corrosion & poor connections result in high resistance & poor conductivity.

Solution: See our Bonding Guide & Seek professional assistance.

Zinc Passivation

Zinc anodes can build up a crusty layer over the metal as a natural form of oxidation defense. This is usually caused by changes in current draw on the anode or environmental influences.

Solution: Ensure correct anode type installed. See Anode Selection Guide.



Electrolysis Submurged

Caused by DC stray currents from on board electronics, faulty wiring or from marina stray current if no galvanic isolation is installed.

Solution: Seek professional advice.

Crevice Corrosion

Commonly affects stainless steel components where water becomes trapped (stern tube, threads, pipes) - becomes highly acidic and destroys the stainless steels protectant layer. Can be exacerbated by overprotection or indifference between surfaces.

Solution: Regular flushing with water, appropriate sealing of threads and efficient bonding system.

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CORROSION CONTROL THAT WORKS