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PRESS RELEASE**



## **How to Keep Corrosion Protection Simple in Shipboard Control Rooms**

Engine control rooms (ECRs) aboard ships are often a refuge from the heat and noise of the giant diesel engines pounding away next door. However, these havens do not necessarily escape corrosion. It is therefore important for control room operators to have simple strategies to protect engine room controls from corrosion and the potential failures that come with it.

### **Corrosion Threats in a Marine Control Room**

Marine control rooms are air conditioned to keep electricals and electronics from overheating. Although hot air tends to accelerate corrosion, cool temperatures do not necessarily eliminate corrosion. Often opening into hot, humid engine rooms that pull ocean air in for cooling and ventilation, marine control rooms can receive a blast of warm damp air when operators step in for a break. As this clashes with the cool air, moisture is more likely to condense on metal surfaces, inciting corrosion. The added dimension of high salt content in marine air increases the corrosion risk even more.





## Consequences of Corrosion

The engine room control center is critical to the safe and effective operation of the ship. From here, operators can monitor how equipment is working and even start or stop the engine. If electrical contacts, wires, or sensors within these systems were to corrode, they would require replacement at best or create serious malfunctions at worst. Moreover, many of these digital controls and panels have a high price tag for replacement, making prevention the best cure.

## Strategies for Corrosion Prevention

While adding a dehumidification system is a great idea for cutting down on the corrosiveness of the environment, a few additional steps can reduce corrosion with or without humidity controls. One of the simplest remedies is to install VpCI® Emitters in electronic and electrical enclosures. These Emitters contain Vapor phase Corrosion Inhibitors that diffuse out of breathable membranes and fill the electrical enclosure with corrosion inhibiting vapors. Because the vaporized molecules



have an affinity to metal, they naturally form a protective molecular layer on wires and metal contacts, not interfering with operation. The [VpCI®-105 Emitter](#) contains enough chemistry to protect a space of 5 cubic feet (0.14 m³) for two years, while the [VpCI®-111 Emitter](#) is designed for the same length of protection in a space of 11 cubic feet (0.31 m³). The [VpCI®-308 Pouch](#) provides enough protection for even larger spaces of 35 cubic feet (1 m³). For areas that are ventilated or not enclosed, a thin protectant film such as [ElectriCorr™ VpCI®-239](#) can be sprayed onto the metal surface (be sure the equipment is powered off and cool when using near hot or high voltage equipment) and allowed to dry. These simple materials can be used throughout the ship practically anywhere an electrical or electronic device is found.

## Keep Corrosion Protection Simple

Being at sea presents many special risks, including a higher general threat of corrosion. For electronics and electricals that operators cannot afford to have fail, it is important to have special preventative strategies in place to prevent corrosion. Fortunately, these measures do not need to be heroic but can be simple and non-invasive. [Contact Cortec® for more help setting up your onboard anticorrosion strategy for control rooms and beyond.](#)

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