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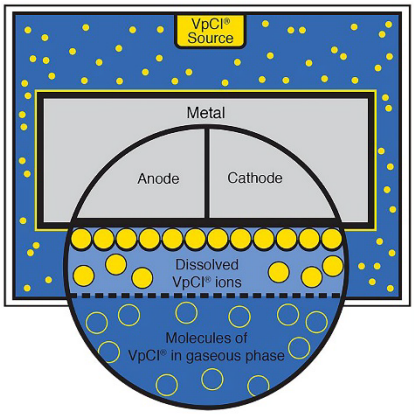
PRESS RELEASE

Protecting Unseen Ship Voids from Corrosion

No one wants to travel in a rusty ship, yet the fact is that these massive vessels are natural candidates for corrosion due to metal building materials and a corrosive navigating environment. Making matters worse, each ship contains plenty of void spaces that may be difficult to reach, making it easier for corrosion to go unnoticed. Cortec® Corporation offers practical solutions for these challenging areas.

Ship Voids at Risk for Corrosion

Aside from ballast areas, ships contain a variety of voids and confined spaces that may trap humidity from the damp, high chloride air that characterizes a marine environment. While some voids may be painted with a protective coating, others may be too challenging to reach, or they may require supplementary protection as the coating ages. In either case, corrosion protection is critical for the safety and longevity of a vessel.



Advantages of Vapor phase Corrosion Inhibitors

Vapor phase Corrosion Inhibitors offer relief to the problem as a highly adaptable chemistry for difficult-to-access voids. When applied, Vapor phase Corrosion Inhibitors diffuse throughout a void space, protecting even hard-to-reach areas. Due to their affinity to metal, the inhibitors adsorb on exposed metal surfaces, forming an invisible molecular protective layer that interrupts the normal electrochemical reaction of a corrosion cell. As long as the void remains closed (and even if it is briefly opened for maintenance), protection remains active, and the molecular layer continues to be replenished by the remaining Vapor phase Corrosion Inhibitors.

Examples of Void Space Corrosion Preventative Maintenance

There are a variety of ways to apply Vapor phase Corrosion Inhibitors depending on the structure of the void and the preferences of maintenance personnel. One of the simplest methods is to apply breathable pouches that contain Vapor phase Corrosion Inhibitor powder. The EcoPouch® contains VpCI®-609 powder for the protection of ferrous metals in void spaces of up to 35.3 ft^3 (1 m^3). Additional pouches can be added for larger volumes. Where access would be difficult, the pouches can be tied to a string for easy removal and replacement every one to two years. The VpCI®-308 Pouch protects the same amount of space and should be used when the void contains yellow metals. If, for some reason, pouches are not desired, workers can fog the voids directly with CorroLogic® Fogging Fluid VpCI®-339 or VpCI®-337. Serpentine structures, such as those within superyacht fenders, may require a solution of VpCI®-649 to be pumped through the void and left to sit overnight before draining. This treatment leaves behind a corrosion inhibiting film of both contact and Vapor phase Corrosion Inhibitors to protect the intricacies of the space.

Be Equipped to Reduce Corrosion Risks

Strategies such as these can be used at any phase in a ship's life cycle—at the time of construction, prior to mothballing, or during dry-docking maintenance. The important thing is for ship owners and shipyard workers to be aware of corrosion risks and practical preventative strategies. In so doing, they can be equipped to reduce those risks and promote a longer vessel service life. Contact Cortec® to learn more about strategies for inhibiting corrosion in ship void spaces.

Keywords: protecting ships from corrosion, corrosion risks, corrosion preventative maintenance, corrosion inhibitors, strategies for corrosion protection, Cortec, VpCI, ship preventative maintenance, dry-docking tasks, corrosion on ships

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