

Humidity Control for Vessel Lay Up

Humidity is a constant threat to container vessels and their cargo. Critical compartments in vessel such as engine room, accommodation room, bridge & control room, forecastle & bow thrusters' room are exposed to a combination of salt laden environment and humid air which accelerates the corrosion process and hence the need to have stringent RH control.

The compartments/rooms are continuously exposed to high humidity surrounding, high room relative humidity causing many problems such as corrosion, mold and condensation. Steel corrosion increases exponentially above 50%RH and accelerates the corrosion process.

To prevent mold growing in accommodation spaces such as radio room, electrical machinery storage room, mattresses storage room humidity control becomes essential.

**Effects of Uncontrolled Humidity**

- Mold and fungal growth leading to decay of cargo/ vessel
- Corrosion of critical equipments/ compartments in the vessel

Causes of Uncontrolled Humidity

Exposure to a combination of salt laden environment and humid air

General Recommendation

Compartments in vessels where dehumidifiers are used for effective moisture control:

- Engine room
- Accommodation room
- Bridge and control room
- Forecastle & bow thrusters

Relative humidity in the all these rooms should be maintained between 50% RH at ambient temperature during vessel cold layup.

Bry-Air Solution

Bry-Air dehumidifiers are the most effective and economical solution for humidity control during Vessel Layup. Bry-Air's Airineers have the proven expertise to address the uncontrolled moisture/ humidity issues across various critical compartments/ rooms in the vessel. The Airineers have worked upon the average day and night time temperatures and RH before suggesting the desiccant dehumidifiers for the various rooms (for e.g. accommodation room, forecastle and bow thrusters room, etc.) to avoid corrosion of critical equipments.

RH control for the various compartments/ rooms at 50% at ambient temperature. Process Dry air will be circulated within the control compartment to allow desiccant dehumidifier to remove moisture from the room. The RH control room should be closed and sealed. Access to the space should be restricted to two opening only if possible

References...Some

- BP Shipcare Management Company
- Wilhelmsen Shipcare Management company
- NYK Shipcare Management company