



# Cargo Preservation



## APPLICATION



Property Damage Restoration



Temporary Humidity Control



Property Performance Services

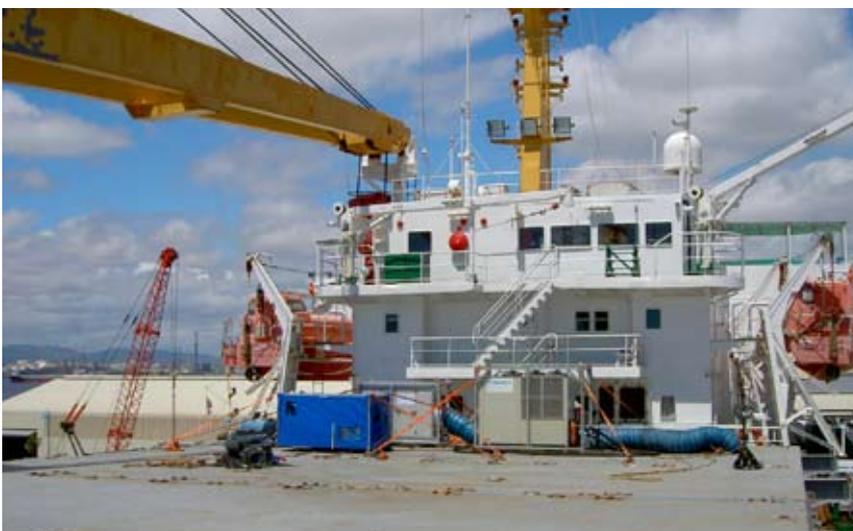
## Overview

Polygon offers vast knowledge, experience and technical expertise in addressing cargo preservation problems. Polygon has been providing solutions to ensure the quality of perishable and humidity sensitive items being carried across oceans for a number of years.

Cold ocean temperatures can cause moisture trapped in the cargo containers to condense as the vessels cross oceans. The salt laden atmosphere can cause corrosive reactions to occur on metal, possibly damaging sensitive electronic equipment. Moist air is often loaded with bacteria which can increase the potential for contamination in stored products. The effects of humidity and temperature on cargo can be catastrophic and quality and reliability can be affected depending on the cargo's sensitivity to such conditions.

Temporary humidity control is vital in the transportation of cargo in maritime environments. The most effective way to protect raw materials and products is to control the moisture and temperatures in the surrounding environment. Polygon temporary climate control system is the simplest, most precise way of achieving and controlling the required humidity conditions and temperatures.

Utilising Polygon's state-of-the-art desiccant dehumidification equipment within the containers provides custom-designed climate control solutions which are engineered to help meet the specifications and needs of the clients. Reduced condensation, controlled temperatures and protected electronic components can all be maintained with the use of the Polygon temporary systems.



Temporary climate system for conditioning cargo hold.



# Cargo Preservation



## PROCEDURE

A trained Polygon technician visits customer's premises to gain an insight into their particular product, problem and the resulting need. Different issues require different implementation methods, so in order to ensure that the equipment is tailored specifically to each case, a number of calculations have to be made to discover the moisture content:

- Size of the room
- Ventilation rate
- How many openings
- Room content composition
- Heat gain from machinery
- Heat/moisture gain from people.

Only when this information is compiled and analysed can the suitable equipment be selected. Polygon personnel can then engineer the equipment for specific applications to meet the desired specifications for the project.

Polygon technicians' service and check the equipment, ducting and ancillary items prior to site delivery. Equipment is then placed in a designated area, positioned close to a power supply and set up to maximise the safe operation of the unit. Polygon technicians' will then continually track the progress of the project by measuring dew point, air velocity and the dry bulb temperature in an effort to optimise the energy consumption of the system.

Polygon state-of-the-art desiccant dehumidification systems are utilised to deep dry the ambient air which ensures that the moisture level in the container is low enough so as to reduce the moisture load. Polygon provides a turnkey solution with well engineered equipment offering an around the clock service that is unmatched in the industry.

## RESULTS

Polygon experienced and highly trained staff can consult customers on the best solutions for their cargo preservation projects. This technology ensures that the owner receives only the equipment required to meet the project specifications while maximising efficiency and guaranteeing the highest possible results. Additionally, using dry air is safer and less expensive than alternative methods such as heating.



Ventilation and heating of a cargo hold.



Dehumidifiers and chillers controlling climate in the cargo hold.



Total temporary climate system to protect expansive cargo.

## BENEFITS

- Considerable energy cost savings, due to the incorporation of environmentally-friendly technology
- Controlled humidity providing, improved, transit conditions
- Increased product quality
- Consistent and dependable dry air enabling the shipping of cargo all year round
- Eliminates delays with shipping due to bad or unreliable ambient climate
- A rental proposition that allows the customer to use the equipment when it is actually required.