



**SURFACE
PREPARATION
& COATING**

Marine and Ship Repair



**Property Damage
Restoration**



**Temporary
Humidity Control**



**Property Damage
Prevention**



APPLICATION

Overview

Shipyards around the world regularly call Munters when they need help with ship maintenance repairs. Weather conditions often make it difficult to perform many of the necessary ship repairs to ensure that vessels continue to operate. Painting, steel replacement and corrosion control are all impacted by the high levels of moisture that can be found on board an ocean going vessel.

Whether it is a military ship, oil freighter, barge or cruise ship, the ability to make repairs in a short period of time is a must. Munters state of the art climate control equipment will enable the ship yard to repair or repaint at any time of the year. Even in the harshest winters, Munters unique blend of dehumidification equipment will keep the condensation in check allowing blasting while large indirect fired heaters create the correct temperatures for coatings to cure.

The control of condensation on the walls of the ship's hull below the water line is of the utmost importance when attempting to recoat steel surfaces. Warm moist air coming in contact with the cold steel surface will produce moisture that can negatively affect the blasting, application and curing of most maintenance coatings. Lowering the dew point in the space is a simple and cost effective method for allowing this work to be completed.

The use of Munters temporary desiccant dehumidifiers and heaters provides the necessary components to allow all ship repairs to be possible throughout the year. Munters provides a completely controlled climate which ensures you can conduct planned maintenance procedures irrespective of weather conditions. Corrosion will be held halted, coatings will be painted in the optimum conditions and the life expectancy of the overall paint system will be lengthened.



Ship hulls after repainting.



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PROCEDURE

In order to ensure that the equipment is tailored specifically to each ship hull, the following detailed information is necessary:

- Size of the interior hull or vessel
- Vessel openings
- Site logistics
- Ventilation rate
- External weather data
- Product specifications
- Water temperatures
- Other equipment to be utilised on the project.

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

Munters technicians service and check the equipment, ducting and ancillary items to be used at the site before delivery. After delivery to the site, the equipment is then placed in a designated area, positioned close to a power supply and set up to maximize the safe operation of the unit.

Munters state-of-the-art desiccant dehumidification systems are utilised to deep dry the ambient air which ensures that the dew point temperature in the hull is lower than the steel temperature so as to eliminate condensation. Temporary cooling and heating equipment can be provided to control temperature conditions within the vessel when needed. Munters provides a turnkey solution with well engineered equipment offering around the clock service that is unmatched in the industry.



During repair the ship hull is covered by plastic foil to maintain a controlled climate. Dehumidifiers blow dry air into the covering, ensuring minimum corrosion between blasting away the old paint and applying the new.

RESULTS

Munters experienced and highly trained staff can consult customers on the best solutions for their ship repair or re-coat projects. By utilising Munters state of the art climate control equipment, conditions are closely controlled to maintain surface dew point and temperature throughout the re-coat process. This technology ensures that the contractor receives only the equipment required to meet the project specifications while maximising efficiency and guaranteeing the highest possible results.



The use of Munters equipment allows ship repairs to be possible throughout the year.

BENEFITS

Benefits of utilising climate control for ship repair coating applications:

- Eliminates condensation that could affect the coating application
- Reduces weather related work delays
- Improves production rates and quality of work
- Extends coating life by providing optimal conditions during application
- Allows a monolithic spray of each coat under proper climatic conditions
- Provides ideal humidity and temperature conditions for holding the blast
- Reduce fuel costs due to Munters highly efficient dehumidifiers which require lower power costs in comparison with using only heaters.