

Home and dry



LEFT: 20ft ex dehumidifier container

ABOVE: Dry conditions – dehumidifier installed

BELOW: Wet conditions in cofferdam without dehumidifier

Air dehumidifiers can improve the efficiency and quality of surface treatment jobs. They can also be a very cost-effective alternative to corrosion protection systems in closed compartments

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Although paint suppliers claim that some paints can be applied on wet surfaces and over flash rust, the best result – with the longest-lasting corrosion protection – is achieved when paint is applied on dry, clean and rust-free surfaces, in a controlled climate.

To achieve this, the surface must be kept dry between blasting and painting – with efficient sorption dehumidifiers you can supply fresh and filtrated dry air (with low dew point) into the tank or into the tent (a covered area that is to be painted). Then the surfaces can be kept dry for longer and the job can be planned more efficiently because bigger surfaces can be blasted before paint is applied. Dehumidifiers can provide dry working conditions regardless of the weather, even in tanks close to seawater. This means that empty ballast tanks can be surface protected even when the ship is at sea.



Dehumidifiers as paint replacement

But can dehumidifiers completely replace corrosion protection paint systems? Inside a closed steel compartment, there are things like voids or cofferdams; a dehumidifier system can be installed there permanently as a reliable and less expensive corrosion protection system.

The surfaces can be left unpainted and the dehumidifier will keep the inside dry and protected from condensation and corrosion. It works on the basis that if the relative humidity is kept low enough (about 45%RH) corrosion attacks are eliminated.

This dehumidifier corrosion-protection system is far less expensive than applying paint. It will also reduce weight considerably and is more environmentally friendly, because paint is not needed. With a dehumidifier system installed it is easy to monitor the corrosion protection.

The system can be installed in bridges, in box bottoms of semisubmersibles, in void spaces and in empty ballast tanks on FPSOs. The dehumidifier will keep the surfaces free from corrosion attacks year after year.

About the company

Alfsen og Gunderson is a leading supplier of dehumidifiers to the maritime market. It delivers air dryers for cargo tanks on chemical tankers and inert gas dryers for LNG vessels.

The Norwegian company also supplies pump packages and water treatment skids for the oil and gas market.

One example is a contract with Hyundai Heavy Industries for design and delivery of chemical injection systems for the Goliat FPSO project. //

About the author

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