

REFRIGERATED STORAGE



- Avoid ice and frost fouling
- Constant temperature and reduced need of defrosting
- Improved hygiene and safety

Refrigerated storage

Ice, frost and fog build up occurs whenever warm air gets in contact with a cold environment, for example when doors are opened and closed in a refrigerated storage. The fog can affect the ability to see clearly, ice build-up on floors or ceilings within the storage can present a hazard to staff and makes the driving of trucks dangerous. Ice and frost build-up means that regular defrosting of the store is required which costs the company time and money.

Product freezing

Without dehumidification of the air that is entering the building, through the conveyor feed apertures, will it convert into ice and frost formation. Which in turn will lead to the malfunction of the conveyor machinery and associated proximity, optical sensors. If that happens the production have to stop for defrosting and cleaning, something that can be avoided with a dehumidifier. The problem increases during the summer months due to higher ambient temperature and subsequent moisture content of the air that enters the building.

Health and safety

The icing, fogging and frost problem can be virtually eliminated by the installation of a desiccant de-humidifier to provide dry air into the factory. This will create a much safer and more pleasant working environment resulting in increased productivity. Down time for defrosting and cleaning will be drastically reduced and the working environment will be more worker friendly.

A dehumidified environment will pay for itself in many ways.



References

Norway: Frigoscandia, REMA 1000, Hennig-Olsen Is AS

Sweden: COOP, Kalmar LMV, Lyckeby Stärkelsen, Stece AB, Transpo konstruktions

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World leaders in dehumidification.

Example of a DST dehumidifier installation:

Imperial Cold Logistics

Imperial Cold Logistics, a prize winning company that has built a reputation for high quality in an effective and purposeful way, is located on the east coast of South Africa, in Durban. They are specialized in the logistics of refrigerated and frozen goods for the retail and wholesale trade.

Problems with humidity

Geographically, the company is perfectly located in a large port, but they suffered major problems due to the hot and humid climate experienced on the coast. Every time the transport vehicles arrived or left, the hot, humid air flowed directly in and met the 10°C air in the dispatch area. This caused condensation and fog to form, which added to the difficulty in keeping the cold and freezer rooms free from humidity and thus, free from pools of water and the formation of ice. When the humidity was over 95%, the visibility became very bad due to fog, which also meant it was not possible to prevent ice from forming on the floor, walls and ceilings. The fork trucks were sliding and destroyed the premises, the electronic systems were destroyed by the humidity and the environment was

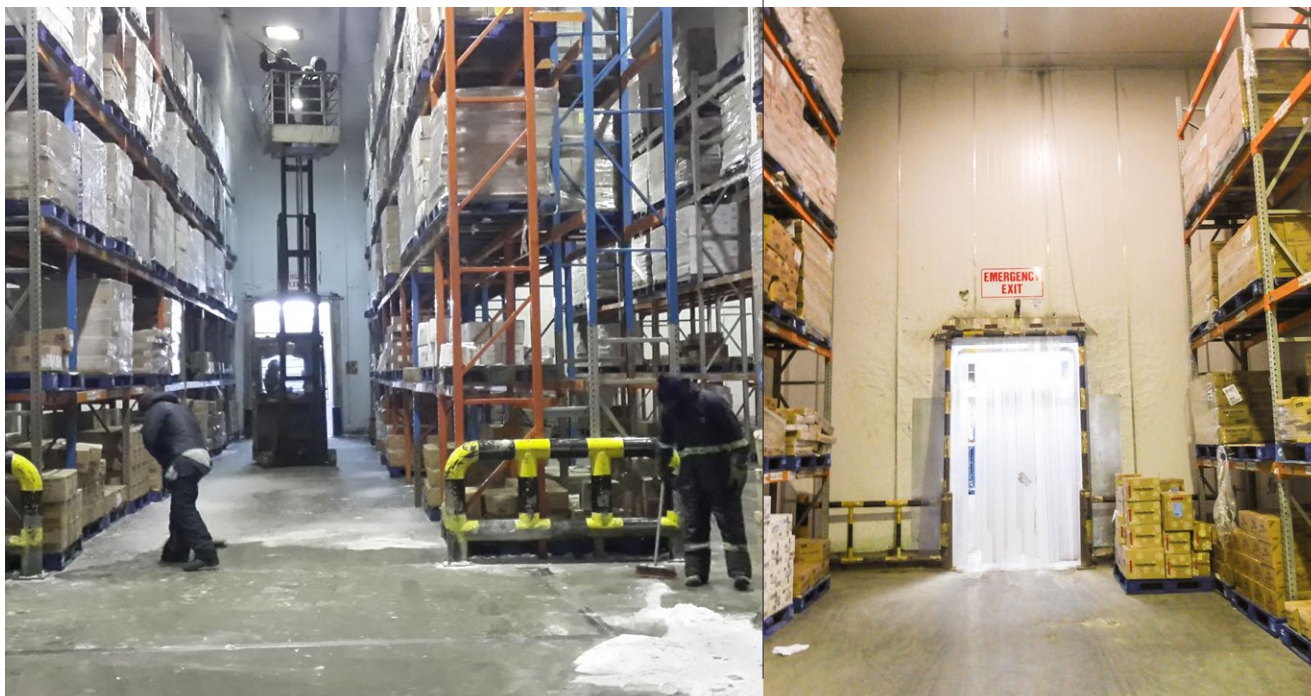
generally hazardous to work in.

Dehumidification as a solution

The solution was that Specialized Climate Engineering (SCE) offered them an efficient climate controlled technical solution with training and running service agreement. They installed three DST RZ dehumidifiers, which can keep the humidity in check, and counteract ice formation and pools of water on the premises.

The result of dehumidified premises

Once the dehumidifiers had been installed, Imperial Cold Logistics' equipment lasted longer, because the fork trucks can now be stored in a dry environment, which means they no longer suffer from short-circuiting. Nevertheless, the greatest relief for these areas is that the concrete and walls can finally dry out after years of exposure to high humidity. Which in turn means it is possible to keep everything clean and safe once again. The improved work climate has also contributed to happier and more satisfied employees.



After SCE installed three DST dehumidifiers. There has been no ice formation, water pooling on the floor and the fog has been eliminated. Images borrowed by SCE.

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