



TEMPORARY
HUMIDITY CONTROL

Proof of Concept for Permanent Systems



Property Damage
Restoration



Temporary
Humidity Control



Property Damage
Prevention



APPLICATION

Overview

Problems related to relative humidity are seen in almost all industries. Stored products and materials are susceptible to humidity which can result in corrosion and mould occurrence. In a production environment if optimum conditions are not maintained, processes can be interrupted by for example products sticking together. This scenario can only lead to wastage and expensive interruptions to production.

Munters recognise the importance of maintaining an optimum climate, not just during periods of high humidity but, all year round. Using experience gained through the installation of temporary solutions, Munters is able to work with clients to recommend and implement bespoke, permanent humidity solutions to achieve the optimum climate for each client's environmental needs.

Munter's dehumidifiers work according to the absorption technique. This means that the air to be dried passes through a rotor impregnated with a hygroscopic drying agent. The drying wheel rotates slowly and the moisture content in the air is reduced as the water is absorbed by the drying wheel and is then extracted from the dehumidifier's reactivation zone. This moisture can then be vented to the atmosphere or condensed into water.

Humidity control can be necessary during periods of the year when moisture content in the atmosphere is at its highest. In many industries it is crucial to maintain a consistently optimised climate to preserve product quality. Munters provide custom designed dehumidification solutions across a variety of industries and based on vast experience and technical knowledge, Munters has developed a range of reliable and efficient dehumidifiers that in conjunction with other technologies precisely control humidity to meet client conditions, irrespective of environment.

One of the key areas in which Munters' temporary humidity systems have been particularly successful is within industrial processes such as food and pharmaceutical production. Within these industries, humidity can have extreme effects on product quality during the stages of production, handling and storage.

Traditionally, industries have relied on systems which cool and heat air in a circular flow in order to create the appropriate climate. However, using such a system limits the ability of the client to ensure constant process conditions in different seasons. This is because in winter, the dry air outdoors enables a higher degree of drying internally, compared with summer when the air outdoors holds more moisture. During the summer the drying capacity within the process area is sometimes not sufficient, which means the product dries too slowly, leaving it exposed to moist ambient air which can cause mould growth on the surface of the product.

In storage, products can be damaged if exposed to high relative humidity, so ideally the environment should be controlled to ensure that humidity remains below a certain level. The only reliable solution to ensure protection of stored goods, irrespective of weather conditions, is to use dry air, produced by a Munters desiccant



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APPLICATION (CONTINUED)

dehumidifier. This solution works particularly well in situations where the external conditions differ considerably from the internal conditions, such as cargo transportation at sea.

Munters supply systems to a variety of sectors including supermarkets, schools, restaurants, airports and hospitals, where the focus for climate control is on energy consumption and lifecycle costs. In these environments, Munters combined dehumidification and air-conditioning units are used to separately control temperature and humidity, with the added benefit of market-leading energy efficiency.



Munters has a wide range of products to suit all situations.



Maintaining the right atmosphere.

PROCEDURE

In order to ensure the equipment is tailored specifically to each environment, a Munters technician will visit the site to analyse the area and recommend the most efficient solution.

Munters has a fleet of units designed for specific industries to avoid contamination, so a unit used in industrial manufacturing will not then be used in a pharmaceutical environment. Munters pre-service and check all equipment, including ducting and ancillary items before delivery.

Munters is aware that depending on the industry, requirements vary. Some need a highly regulated environment all year-round, whereas others may only be affected in certain seasons. For this reason, Munters work with clients to assess whether the standard rental systems are the ideal option or perhaps a permanent solution would be better suited in terms of necessity and cost. After installation, Munters offers maintenance agreements ensuring the regular inspection and maintenance of units by an experienced service engineer. The regular inspection of units ensures that all systems continuously perform to the maximum, using the minimum energy consumption.

RESULT

Munters deliver solutions tailor-made to each client to ensure the optimum environment is obtained and maintained based on expert knowledge.



Munters units maintain a temporary environment.

BENEFITS

The Munters' dry air system is the simplest, most precise way of achieving and controlling accurate humidity conditions.

Other benefits include:

- Considerable energy cost savings, incorporating environmentally friendly technology. The energy efficiency of the Munters process results in saving energy costs of up to 50% against the traditional dehumidification process using heating/cooling
- Controlled humidity providing improved production capacity and hygiene conditions
- Increased product quality and shelf-life
- Less mechanical failures – reduced maintenance costs
- Excellent and varied product range ensuring a solution for all individual cases.

A strong after sales organisation to support our customers to get the best out of our equipment.