



# Humidity-controlled storage at furniture removers Goliat

Goliat Archives, Denmark





*The Danish, family-owned furniture removal company Goliat has been in business since 1850. They started out with horse drawn carriages, and now Goliat has developed into a modern and innovative company in the haulage contractor business, removal, and internal and external storage.*

*Goliat has recently invested in an advanced container system for storage of private furniture, office equipment, and document archives. They now offer humidity-controlled storage facilities in containers of many different sizes.*

### **Munters dehumidification keeps things dry**

Stored items are efficiently protected against humidity-related damages when Munters dehumidification is used in storage containers. The desiccant dehumidifier works by absorbing moisture from the ambient air into a slowly rotating desiccant wheel (rotor), impregnated with a highly hygroscopic media.

The dry air leaving the desiccant drying wheel (rotor) is distributed into Goliat's containers. A smaller, heated air stream is lead through a small section of the rotor and the warm air removes the absorbed humidity from the rotor material, blowing the warm, and now, wet air outside the container. The process runs continuously, without any refrigerants, and is even efficient at temperatures below 0°C.

#### **Case study**

- Humidity controlled storage at furniture removers Goliat

#### **Advantages:**

- No risk of humidity-related damage to the stored items
- Constant and low humidity all year round
- No need for heating
- The dehumidification system automatically adapts the air flow to the number of containers in use



# Operating principles at Goliat

From the centrally placed dehumidifier, a system duct and flexible connection distributes the dry air to the containers. An advanced control system automatically adjusts the necessary amount of air, depending on the number of containers in use. By using this control system – copied from military container systems - the dehumidifier runs as efficiently as possible. The electronic humidistat ensures that the relative humidity never exceeds 55 % RH.

René Andersen from Goliat explains that many customers appreciate the fantastic benefits from the dehumidified storage system. They are easily convinced about the advantages of the new concept and experience a comfortable storage climate.

There's no bad smelling humid air, mold or moths inside the containers. Not only private households but also many companies are renting containers for longer or shorter periods when extra storage facilities are needed. Today, Goliat stores paintings for artists, tools, raw materials, and products for many companies.

## **Save energy and create a better storage climate**

The only truly efficient way to control the relative humidity is by installing dehumidification.

With a Munters desiccant dehumidifier humidity is easily and efficiently controlled and will never exceed the set value, eg. 55% RH – regardless of outdoor fluctuations.

By controlling humidity with dehumidification, heating becomes superfluous. Most stored objects, except for some liquids, are completely insensitive to temperature, which explains why heating can be completely avoided, saving huge amounts on the energy bill.





# Desiccant dehumidification – efficient at all temperatures

At Goliat, the dehumidification solution is a copy of the principle used for years in military container systems.

The principle consists of a large, centrally placed dehumidifier, in this case a ML-series version. The dehumidifier functions according to the desiccant principle invented back in 1950's by Swedish founder Carl Munters, initiated on a request from the Swedish defense.

## **Expensive and unnecessary heating**

Storage and removal companies often use heated facilities to assure correct storage conditions. Heating is a very expensive method that doesn't provide sufficient control of the relative humidity. The humidity in the storage will fluctuate with the outdoor variations over the day and year, and even on warm days the relative humidity will reach a level too high to avoid damage to the stored goods.

Would you like to find out if Munters has a solution for your company too? If so, please visit our website, [www.munters.com](http://www.munters.com)

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