

# National Retail / Grocery Store



## Munters Corporation

- Natural gas-fired desiccant dehumidifiers
- 30,000 cubic feet of air per minute
- San Antonio, Texas

The desiccant system helps maintain the 204,000-sq.-ft. retail/grocery store's indoor air quality and creates a comfortable environment for employees and customers by controlling both the humidity and temperature in the store.

## Desiccant System Provides Comfortable Shopping Environment

When a major retail and grocery chain opened a new store in San Antonio, Texas, in early 2004, customers came to shop in a comfortable indoor environment, thanks to a trio of Munters SuperAire natural gas-powered desiccant dehumidifier units.

Outdoor humidity can be a challenge in San Antonio during the spring and summer months. But regardless of season, the Munters SuperAire desiccant units make it possible for the store to maintain a constant relative humidity of 35% at a temperature of 77°F (25°C). Each of the three units processes 10,000 cubic feet of air per minute.

The desiccant system helps maintain the 204,000-sq.-ft. retail/grocery store's indoor air quality by bringing in moisture-controlled fresh

air, while pressurizing the building so outside air does not rush in when the front doors open. Other benefits include preventing clouding on the doors of refrigerated frozen food cases, eliminating frost buildup on frozen foods, and minimizing ice formation on the cooling coils of the refrigeration system.

"Ice will form on [refrigeration] coils if the air has a lot of moisture in it," says Senior Project Engineer Patrick Kotara of CPS Energy™ (formerly City Public Service), the local natural gas and electric provider. "So instead of having to defrost those coils six times a day, defrosting is reduced to twice a day with the desiccant units. Less defrosting of coils saves money and time."





If refrigeration coils are defrosted less frequently, the building's electric demand is reduced. This, in turn, reduces electric power generating requirements for the utility.

Munters dehumidification systems have been installed in numerous supermarkets throughout the United States to help maintain proper temperature and humidity levels, particularly in frozen foods areas. Lower indoor humidity makes it possible for building occupants to feel comfortable at higher temperature settings. As a result, desiccant dehumidification systems reduce the cost of cooling, while improving customer comfort and product appearance.

Further advantages of reducing humidity levels in grocery stores include better product visibility and improved food safety. High humidity fogs up glass display cases, hiding products from the customer's view. Excess moisture on exposed food items can lead to microbial growth, which can affect food safety.

Drier air also reduces the drying time for wet floors, helping reduce the possibility of slips and falls.

Similar Munters systems are used by many of the nation's largest supermarket chains, according to John Grossman, National Accounts Manager for the Munters DryCool division.

"Although the primary purpose of the system is to control the environment in the grocery area, controlling the humidity and temperature levels around the display cases is an added benefit," says Grossman. "In most of the supermarkets you go into, it's fairly cold around the refrigerated display cases. Since high-margin products such as ice cream and frozen foods are sold in that area, you want your customers to stay in that area and shop. Our systems pull the cold air off the floor and make it a comfortable environment for associates to work in and customers to shop in."

He says DryCool shipped between 4,000 and 5,000 desiccant dehumidification units since 1992. The company expects to ship another 1,500 units in 2005.

CPS Energy provided a rebate to the store owners for installing the Munters desiccant dehumidification system.



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