

**PROJECT:**

Cub Foods, Bedford Park, IL

ISSUE:

- Uncomfortable shopping experience in the frozen food aisles
- Fogged cooler doors
- Ice build-up on food

SOLUTION:

Desiccant cooling using a Munters 530 Dry Cool 16,500 cfm

RESULTS:

- Vastly improved shopping environment for customers
- Lower equipment maintenance
- Improved product quality

CASE STUDY

CUB FOODS GETS COMFORT AND SAVINGS IN THE BAG WITH DESICCANT COOLING

When the Cub Foods grocery store opened in Bedford Park, shoppers on the frozen food aisle got a special treat – something better than free food samples. They enjoyed a comfortable shopping temperature, fog-free glass doors and visually appealing products without messy ice build-up. All that, thanks to natural gas-fired desiccant cooling – an efficient way to supply very dry air at a comfortable temperature.

"Shoppers may not necessarily notice these things if we do them right," explains Chuck Odom, Cub Foods store director. "But we certainly hear about them if there's a problem. That's why we selected a desiccant dehumidification system for the new store from the very beginning.

"With a regular cooling system, you have to turn the temperature way down during the summer months to compensate for the high heat and humidity," Odom continues. "That makes it very cold and uncomfortable for shoppers." Without humidity control, condensation forms in the freezer cases. The glass doors fog up, and people can't see what's inside. Opening and closing the doors just makes the problem worse. The products end up with ice build-up and eventually damage. And ice forms on the equipment coils, leading to frequent breakdowns. All these problems can be very costly."

Desiccant systems are a well-established natural gas technology and often the most effective space conditioning solution for hospitals, schools, hotels/motels, office buildings, retail establishments and supermarkets, as well as a wide variety of industrial and technical facilities. According to industry sources, desiccant cooling should be considered as an option if the needed dew point is below 45-50° F.

When desiccant is added, users can raise the coil temperature of existing cooling systems, increasing efficiency and reducing costs. Desiccant cooling can also be an excellent way to reduce the need for new generating capacity or reduce electric demand charges. In fact, desiccants can be combined with absorption or engine-driven chillers to reduce electric demand for cooling load during on-peak periods.

"I've been in this business for more than 20 years," Odom concludes. "This is the first store I've ever seen that didn't have a major equipment breakdown during the summer because of humidity condensation on the coils. The natural gas desiccant cooling has made a huge impact. We've improved comfort. The products and cases look great. And it's very cost effective.

I would definitely recommend it."