

General Mills Headquarters Campus

GOLDEN VALLEY, MN

Key to General Mills' success in the crowded food processing industry is understanding the needs and lives of its consumers. General Mills meets these needs with more than a dozen iconic brands, eight of them generating more than \$1 billion each in annual sales.

Employees matter, too

Through experience or simply by extension, General Mills also understands and cares about the lives and needs of its employees. The company's wellness program includes onsite physical therapists and a preventive cardiologist¹. A corporate health department advocates for employees on health-related workplace concerns, one area of concern being indoor air quality.

In response to reports of office air being too dry, the General Mills facilities team analyzed the existing humidification equipment and the relative humidity in their Minneapolis-area buildings, where winters are desert dry.

"The main driver for this analysis was a new call-in service for building service calls to our maintenance department back in the mid 1990s," recalls Tim Weiss, the company's facilities team leader at the time. "We trended and categorized these calls and noticed that wintertime complaints of office spaces being dry were common, especially when the outside temperature was below zero."

Complaints about static shocks and requests for printer support also increased during winter months, according to the call logs. Static shocks are a nuisance, but static electricity in computers and other office equipment can be very costly. Even a small amount of energy in a static spark can ruin a circuit board or cause serious damage to a hard drive.

Existing humidification systems needed more capacity and attention

Two trends emerged during the equipment analysis. One, the existing humidifiers tended to be undersized for winter humidification demand. And two, they were not on preventive maintenance schedules. Hidden away in air handlers and seldom needing attention, some of the humidifiers were serviced on a reactionary basis or even shut off year round. Clearly, the existing humidification systems were not meeting the needs of the facility. This building's new and retrofitted air handlers are equipped with centrally controlled DriSteem humidifiers.

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One of the drivers for humidification in the office buildings was reports of static shocks.



A sampling of the steam dispersion panels in the air handlers of General Mills' Minnesota buildings



Afraid to touch anything?

lons cling to surfaces in dry offices, and dry air is not conductive enough to allow the ions to dissipate. Because of that, static shocks are stronger and more common in offices with dry air.

A humidifier in a building's air handler, especially in the winter "can reduce the static electricity below the threshold of human perception and minimize if not eliminate its potential to damage electrical devices².

New humidification systems centrally monitored and controlled

As a result of the analysis, and with buy-in from the on-site health department, the facilities team recommended equipment updates and a new approach to humidifier maintenance.

"We set a standard that all future air handler purchases include steam humidification systems sized for winter," explains Weiss. "We also upgraded the undersized systems and wired them into the building automation system for centralized monitoring and control." Aside from convenience, central monitoring would also provide a means for tracking humidifier performance and scheduling shutdowns for preventive maintenance.

Amazing results the following winter

"We were amazed the following winter by the decreased number of calls on dryness, static electricity, and printer performance calls," said Weiss.

On sub-zero winter days in Minnesota, most humidified buildings form condensation on the windows. An additional benefit of centralized control was the ability to prevent window condensation.

"We addressed the condensation issue that first winter by experimenting with various conditions. We came up with a building-wide program that lowered the relative humidity when outside temperatures plunged below zero," said Weiss. "By now, the humidification systems have been modified even more as controls have evolved, but the premise of the humidification standard remains the same."

DriSteem is pleased to provide the key components for meeting a healthand comfort-focused humidification standard.

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Global Headquarters: 14949 Technology Drive Eden Prairie, MN 55344 800-328-4447 or 952-949-2415 952-229-3200 (fax) Email: sales@dristeem.com

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