

HUSSMANN®

EMS Environment Management System

Surface and Air Sanitation Technology

for Continuous Reduction of Bacteria, Molds and Viruses in Grocery Stores



Safer, Cleaner Foods and Food Stores

EMS Environment Management System

- Safer Foods
- Cleaner Stores

Grocery stores and shoppers are increasingly concerned about food safety and cleanliness. EMS effectively addresses this issue with an advanced system that keeps stores and foods cleaner and safer for shoppers.

EMS Value for You

- Reduction of bacteria, molds and viruses
- Reduction of cross-contamination
- Cleaner air
- Safer, cleaner foods and surfaces



EMS Unit in Deli Department

Other EMS Benefits

- Reduction of odors
- Extension of fresh food shelf life

Produce in Storage Areas With and Without EMS



With EMS
(7 day test)



Without EMS
(7 day test)



Grapes in Storage
With EMS



Grapes in Storage
Without EMS

Places Where EMS Can Provide Cleaner, Safer Shopping Areas and Work Areas

Service deli and meat departments



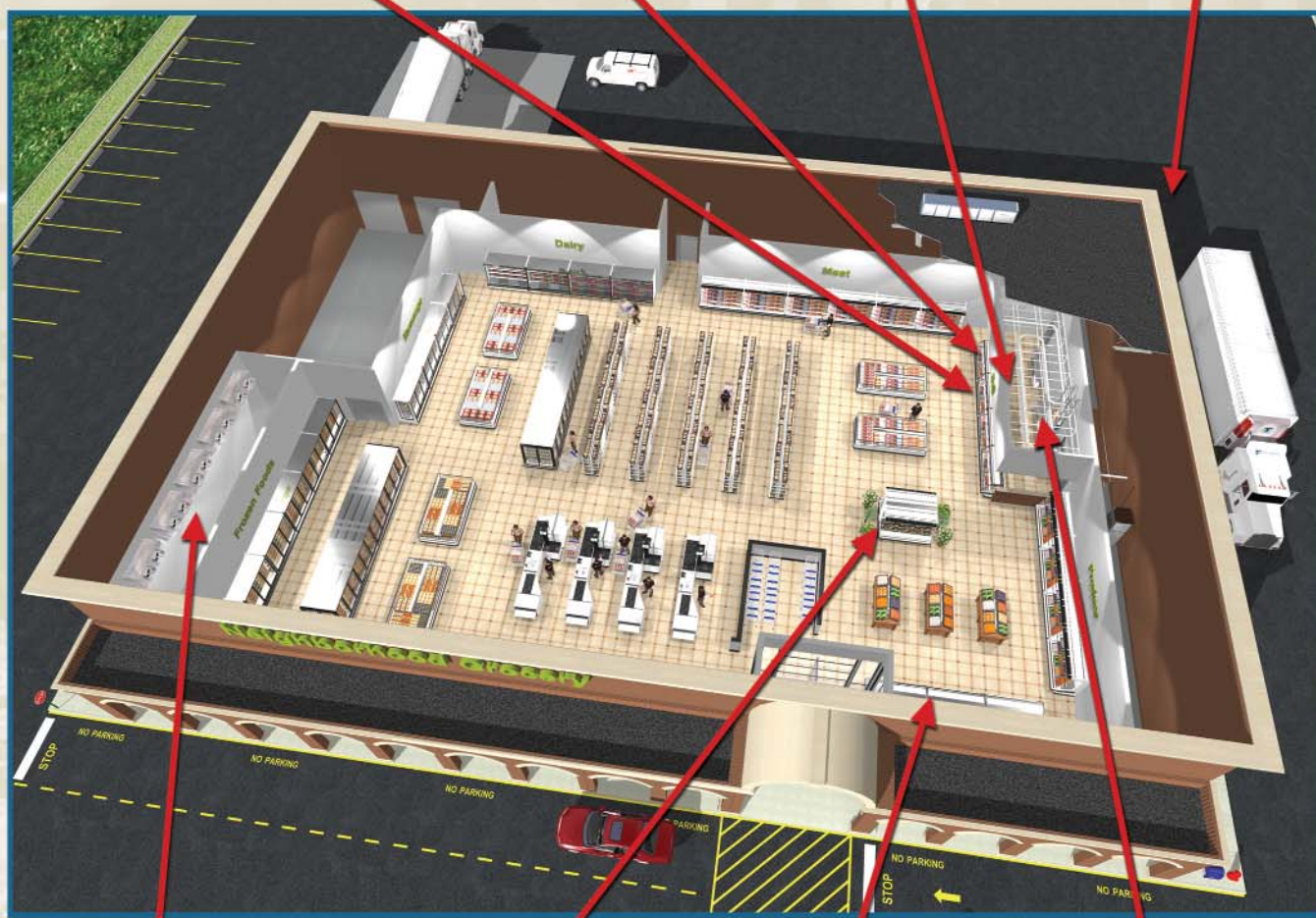
Service seafood departments



Inside service cases (Future availability)



High odor areas like garbage disposal and bathrooms



Inside walk-in coolers



Inside floral cases (Future availability)



In-store bakery areas



Food prep areas



EMS Complete Store Protection System

Inside
Walk-ins

In Prep Areas

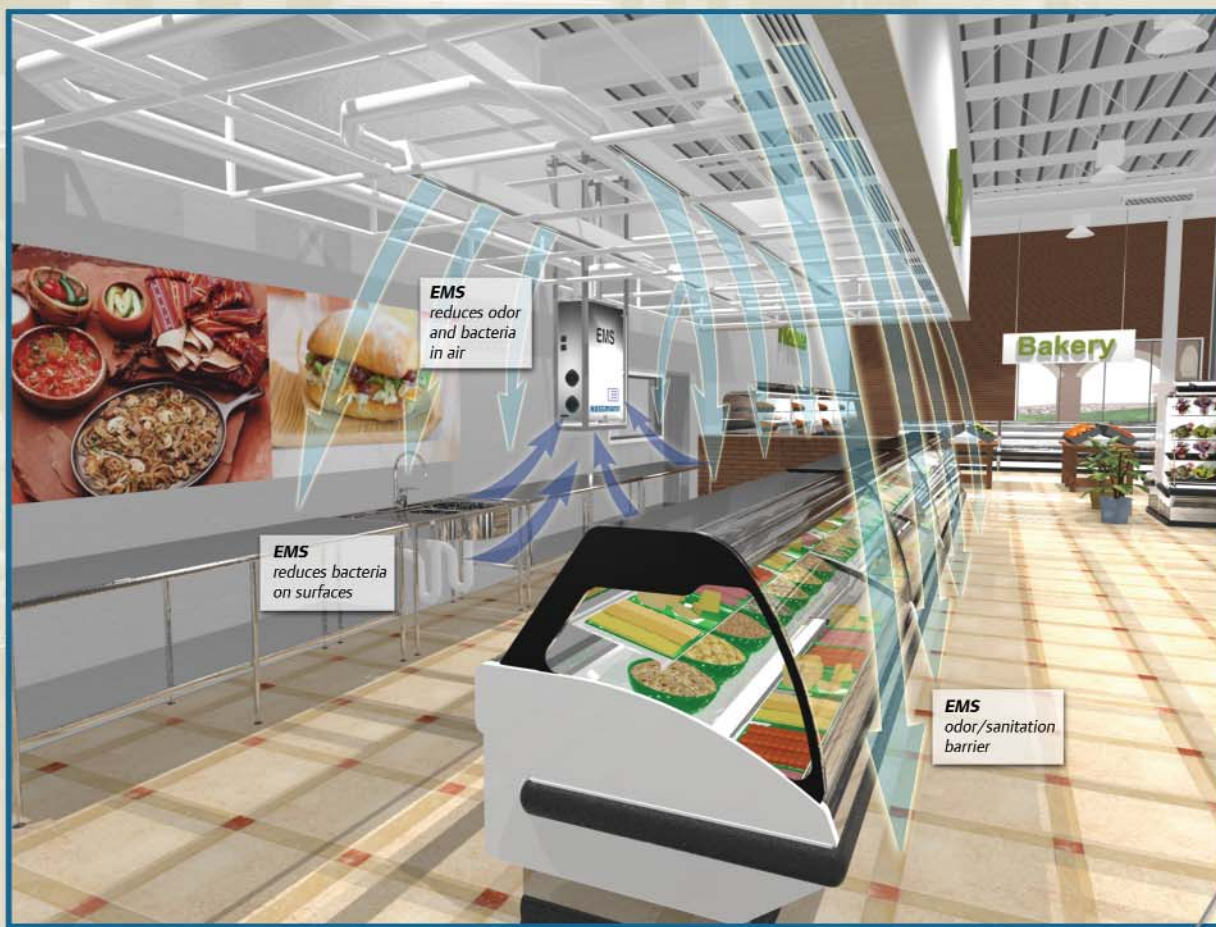
In Specialty
Departments

In Display
Cases

In Garbage
Disposal Areas

Increase food safety and sanitation as fresh foods move through your store. EMS reduces *Listeria*, *E. coli*, *Salmonella*, molds and viruses on foods, in the air and on surfaces.

Example Uses in Deli or Seafood Department



In a Hussmann sponsored survey of 1500 shoppers, three top areas of concern were: food safety, cleanliness/odor, and shelf life. All three are addressed by EMS.

- ▶ EMS makes foods and stores cleaner and safer
- ▶ EMS reduces odors in the store
- ▶ EMS helps extend the shelf life of fresh foods

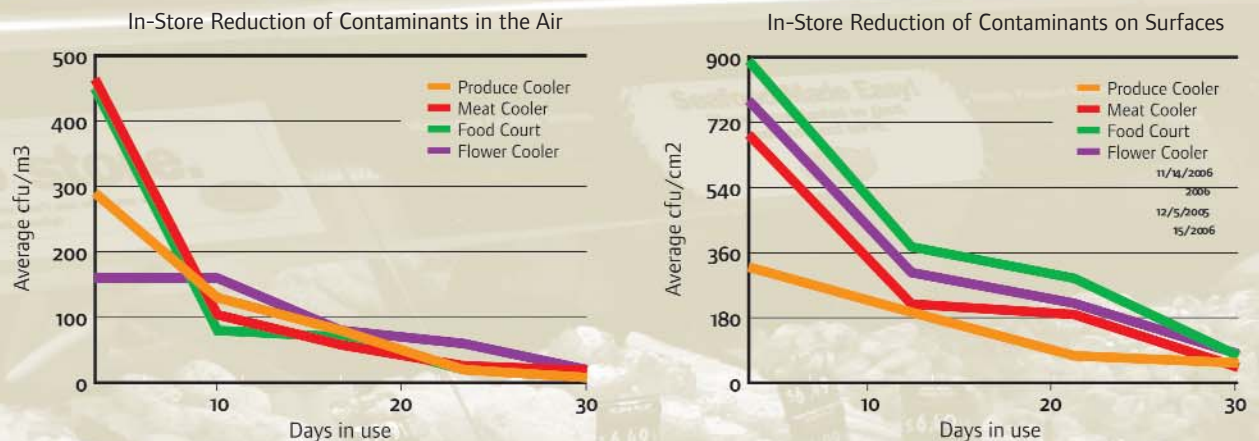
Unique Two-Stage Cleaning System

EMS units help sanitize surfaces and the air in two ways:

1. EMS creates Reactive Oxygen Species (ROS) to help sanitize the air and reduce contamination. Several of these powerful ROS components work only within the EMS unit and exist for less than one second.
2. Surfaces are made cleaner, and air barriers created, with the release of low levels of longer acting Reactive Oxygen Species. These reduce contaminants on work surfaces and food surfaces.

The end result is a cleaner facility with safer foods

Results of Tests



Laboratory Tests:

- 99.9% reduction in 3 airborne bacteria associated with fresh meat spoilage (USDA Agricultural Research Center)
- 99.9% reduction in *Listeria* on surfaces of stainless steel and fresh cut produce (Food Safety & Process Technology, a California food-testing lab)



Providing equipment and services to manage controlled-temperature environments for food and other temperature sensitive products, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King®, a world leader in transport temperature control systems, and Hussmann®, a manufacturer of refrigeration and food merchandising equipment.

www.thermoking.com www.hussmann.com www.ingersollrand.com

Hussmann Corporation
12999 St. Charles Rock Rd.
Bridgeton, MO 63044
Ph: 314-291-2000
Fax: 314-298-4756