



SOLVE THE TOUGHEST COLD STORAGE CHALLENGES

Maintain Temps, Save Energy, Cut Condensation



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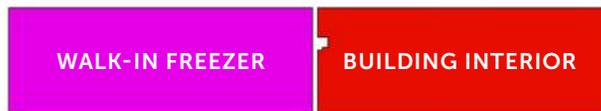
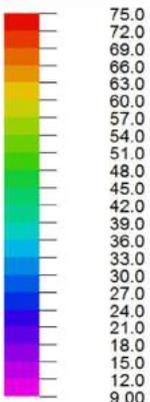
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1. The Mars air curtain serves as a strong sentry to reduce energy spend, maintain cold storage temps and optimize the cold storage unit operability.

2. A dependable guard at cold storage entryways, the Mars unit is a reliable sentry when pooling water and condensation threatens safety with pooling water and slippery floors.

THE SCIENCE BEHIND THE MARS SOLUTION

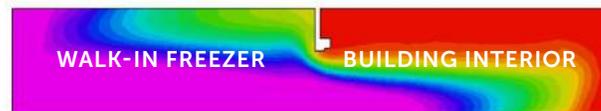
Temperature



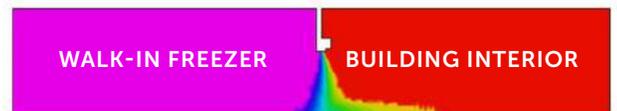
Door Closed – Air Curtain Off



Mars LoPro Model Air Curtain



Door Open – Air Curtain Off



Open Door with Protective Air Curtain Shield

How Does An Air Curtain Work?

By delivering a constant flow of air across an opening, an air curtain provides an invisible shield of air that separates environments in a building, whether it be climate controlled inside air from non-controlled outside air or internal work areas that need to be separated. It is also effective for inhibiting air borne contaminants,

such as flying insects, dust, dirt, and fumes. Applications run from small pass-thru drive-up windows to retail stores to restaurants to larger warehouse and manufacturing loading dock doors.

Benefits

- Environmental Separation
- Energy Savings
- Product Quality
- Sanitation Barrier Against Air Borne Contaminants
- Flying Insect Control



TOO MANY PEOPLE NEED US – IT HAS TO BE RIGHT

When you're as successful as Westmoreland County Food Bank because you serve 7,200 families a month and operate a 40,000 sq.ft. facility that processes 8.6 million pounds of food a year, your food storage equipment needs to work flawlessly. For Westmoreland, facility limitations forced the freezer and evaporator to sit side-by-side which led to a healthy dose of humidity leading to ice and frost on the floor outside the freezer doorway – a safety hazard for both forklifts and workers on foot. When it's too important or costly to be anything other than right, Mars Air Systems is the team you want on your side. Mars has been repeatedly the source for answers when large industrial and food-service operators need no-fail solutions to vexing humidity, unwanted condensation or accident-provoking pools of water. Deploying air baffles to ride shotgun along side the series of air curtains gave the Westmoreland workers the means to ward off the flowing water that had been a source of slippage, falls and worker injury.



PUTTING THE SKIDS ON SLIPPERY

Campbell Soup Company, one of the largest food companies in the world, operates a sprawling, 2.4 million-sq.-ft. facility on a 949-acre parcel, which includes operating a cooler/freezer storage unit 24 hours/day alongside a 8'x16' heavily trafficked forklift entrance with a fast-acting vertical-lift door. The hot, humid warehouse conditions collide with the cold, dry-storage area air which produces condensation and pools of water at the base of the freezer -- both inside and out. Water also flowed from the freezer opening directly into the walkways that hosted both foot and forklift traffic. The Mars Air Systems Engineering team isolated the precise area that needed an air burst then installed a bundle of door-activated air curtains and air diffusers right at the forklift entrance. The air curtain's forced-air action stabilized cold area temperatures by creating an air seal which effectively evaporated most surface condensation and eliminated pools of water in the walkway.



PRODUCING NON-TRADITIONAL SOLUTIONS

To make sure frozen food keeps its sensory and nutritional quality, as well as maintain food safety standards, temperature requirements have been set for every stage of the cold storage chain. No less a consideration is the hit to food storage life when products are exposed to temperature fluctuations. In challenging environments, the mere act of moving food from a transport truck to a freezer can raise the temperature of the food significantly and tax a cooling system as it struggles to return to the thermostat set point. The Mena House Hotel in heat-steeped Cairo, Egypt has welcomed dignitaries such as Winston Churchill, Queen Mary and Richard Nixon as well as average summer temperatures of 94°F to 104°F. With a bank of 20 foot by 20 foot freezers that needed repeated stocking to feed hotel guests, a solution of significance was on demand to unburden the freezer compressors, protect the food from heating up and give some relief to rising energy costs. Using a series of 42-inch custom-engineered models, the Mars Air Systems engineering team was able to create a wall of cold air sufficient enough to consistently halt the incursion of heat and dust. The air curtains eliminated temperature fluctuations, cut out the stress on the equipment trying to re-cool and helped reduce burgeoning energy costs.

For over 50 years, Mars Air Systems has been the international leader with air curtains. Manufacturing products of the highest reliability that can fit a range of applications and sizes; from drive-thru windows to receiving doors to outdoor patios, we help you comply with federal and state regulations while we lower energy costs and protect climatized air.



atmosphere is everything

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