

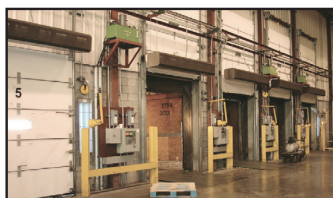
# COLD STORAGE SOLUTIONS

POWERED AIRE INC.

## If You Have Any of These Problems:

- Ice or frost forming on the wall or ceiling inside freezer door openings.
- Moisture and frost forming on cooler/freezer high speed fabric doors.
- Doors that are difficult to open due to ice.
- Wet and icy floors creating slippery and unsafe conditions for forklifts and personnel.
- Strip doors are not a good solution because of safety and performance issues.

**A Freezer Aire Curtain™ or Cooler Aire Curtain™ is the solution to moisture, frost and ice problems when your primary door is open!**

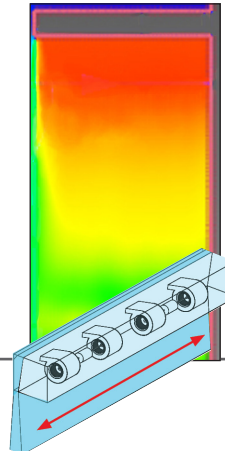


## KEY DESIGN FEATURES

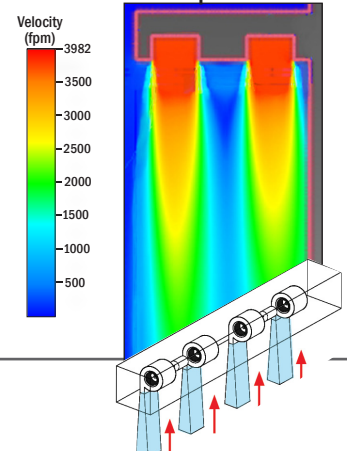
- Standard corrosion resistant stainless steel case.
- Heavy duty direct drive motors for longer life.
- Easy Installation. Mount directly to freezer wall or use mounting brackets with threaded rod.
- Aire Controller™ provides strategic functionality.
- Electric heater automatically turns on and warms the air to reduce the likelihood of it condensing inside the freezer when the door is open.
- One of the unit's unique performance features is Powered Aire's plenum design (see below). A custom plenum inside each unit assures an even air flow across the full width and length of the door opening. Other manufacturers point their blowers down, resulting in dead spots where each motor is located. This allows warm air to flow into the freezer defeating the purpose of an air curtain.



Powered Aire



Competitors



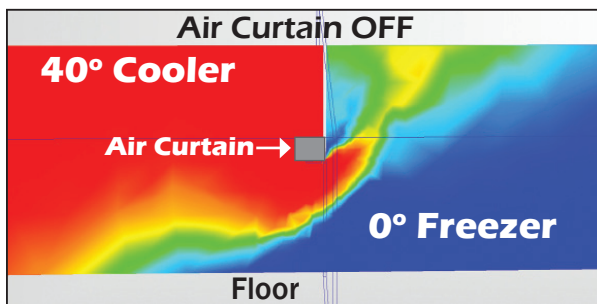
**POWERED  
AIRE INC.**  
AIRE CURTAINS

888-321-AIRE (2473)



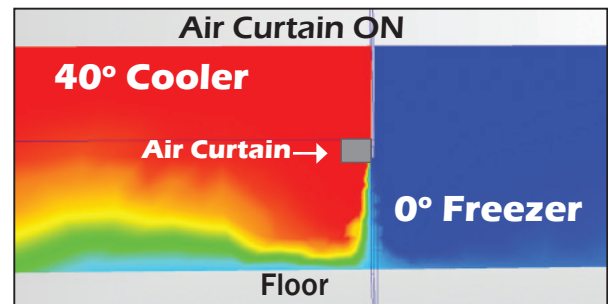
Powered Aire air curtains are  
PROUDLY MADE IN AMERICA

[www.poweredaire.com](http://www.poweredaire.com)



Under normal air density exchange, the warm air enters through the top half of the door opening while the cold air flows out the bottom half of the door. Once the warm air enters the freezer it condenses and creates the frost and ice typically found on the door header, wall and ceilings in these types of applications.

Air flow  
simulation  
10  
seconds  
after  
freezer  
door  
opens



When a Freezer Aire™ Curtain is operating in front of an open Cold Storage Door the warm air is entrained into the air curtain's stream so that when the discharged air reaches the floor it splits, forcing the air back into the warm side and some in towards the freezer as seen by this Computational Fluid Dynamics (CFD) illustration.

## Cold Storage is a Hot Market for Air Curtains

Swing Doors      Sliding Doors      Loading Dock Doors      Man Doors  
High-speed Fabric Doors      Rolling Steel Doors      Insulated Panel Doors

### PROBLEM SOLVED



**BEFORE**



**AFTER**

#### Frozen Food Producer breaks free from fog and ice buildup

A top Canadian producer of frozen food products was searching for a way to reduce the amount of fog produced when 50° F (10° C) cooler air collideded with -40° F (-40° C) air flowing from a conveyor opening.

The fog turned to ice on the drip tray beneath the conveyor belt and employees had to stop the production line to clear the ice away, resulting in unnecessary downtime.

Powered Aire supplied a CED-2-72E electrically heated unit with 1/2 HP motors and 20 kw heat for the 67-in. wide x 22-in. high opening.

The air curtain is mounted on the warmer side to prevent the subzero freezer air from its natural tendency to flow out of the opening toward the warmer room.

The customer reports that the air curtain is performing to expectations in that the fog/ice buildup has been greatly reduced.

### PROBLEM SOLVED



**BEFORE**



**AFTER**

#### Busy Food Bank improves productivity, safety issues

A metropolitan food bank's 4-inch thick bi-parting cold storage doors separate the warehouse from a busy -9 degree freezer room. The doors only stay open for 10 seconds at a time but are frequently cycled.

Plastic strip curtains were initially used but the large temperature difference caused so much fog to develop inside the opening, and frost to build up on the strips, that workers could no longer see through them. The floor outside the doors required constant mopping.

An electrically heated Freezer Aire Curtain™ was installed over each door improving safety, increasing productivity and reducing fog, frost and ice in the freezer. Powered Aire's durable, corrosion-resistant stainless steel air curtains will protect this food bank's doors for years to come while enhancing the facility's LEED certified 'green' status.