

SchwankAir Case Study

SchwankAir eliminates frost with a vertically mounted 4000 Series Air Curtain

Application Type:

- Cold Storage

Equipment Used:

- SchwankAir 4000 Series Air Curtains

Mounting Option:

- Vertically mounted



About The Facility

This facility had a freezer room for the storage of finished, packaged produce. Traditional PVC strip curtains had been installed at the doors to minimize air movement, however they were not effective in controlling temperature and were prone to becoming covered in frost which reduced visibility.

Ice build up on the chiller evaporators meant they were operating at full capacity with frequent service requirements. Full repairs were necessary when the build up of ice jammed the fans. Typically, the room required a 6 weekly shutdown and defrost.

The Issue

Ingress of moisture laden ambient air when the doors were open produced a constant build up of frost on all surfaces within the store, including product. The frost that fell from the PVC strip curtains as personnel entered the freezer posed a slip hazard.

The set point temperature in the freezer was difficult to maintain due to the loss of cold air and ingress of warm air. The evaporator chiller system needed to operate at full capacity to compensate for the temperature losses. The temperature differential between floor and ceiling of the freezer meant the highest shelves in the room could not be used.

Finished product quickly became covered in frost which damaged packaging when thawed.

SchwankAir

USA

Schwank USA Inc.
2 Schwank Way
Waynesboro, GA 30830
Tel.: 1-887-446-3727
E-mail: csr@schwankgroup.com
Internet: www.schwankgroup.com

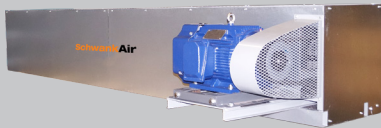
Canada

Schwank Ltd.
5285 Bradco Blvd.
Mississauga, ON, L4W 2A6
Tel.: 1-887-446-3727
E-mail: csr@schwankgroup.com
Internet: www.schwankgroup.com

SchwankAir Case Study

SchwankAir eliminates frost with a vertically mounted 4000 Series Air Curtain

Products used to solve the issue:



4000 Series



Implementation

Installation of a vertically mounted SchwankAir 4000 Series Air Curtain created a smooth laminar air flow across the opening and formed a 90% seal.

The SchwankAir Curtain recirculated the freezer room air. In doing so it effectively de-stratified the room air and equalized the room temperature. As a result, the storage capacity in the freezer increased as the highest shelves of the storage racking could now be used.

Results

The freezer temperature losses and the ambient air ingress were eliminated. The ice/frost issue then dramatically reduced and the PVC strip curtains were removed. No further freezer room defrosts were required. Personnel were able to access the room without any restrictions and safety hazards were eliminated.

On completion of the installation, the client's evaporator units unexpectedly began cycling on and off. Alerted by this, the client contacted the maintenance company who advised that the units were now able to maintain the set point temperature and were functioning correctly. The maintenance and running costs of the evaporators has reduced with associated financial savings.

SchwankAir

USA
Schwank USA Inc.
2 Schwank Way
Waynesboro, GA 30830
Tel.: 1-887-446-3727
E-mail: csr@schwankgroup.com
Internet: www.schwankgroup.com

Canada
Schwank Ltd.
5285 Bradco Blvd.
Mississauga, ON, L4W 2A6
Tel.: 1-887-446-3727
E-mail: csr@schwankgroup.com
Internet: www.schwankgroup.com