

Keep your Cool

in COLD STORAGE APPLICATIONS

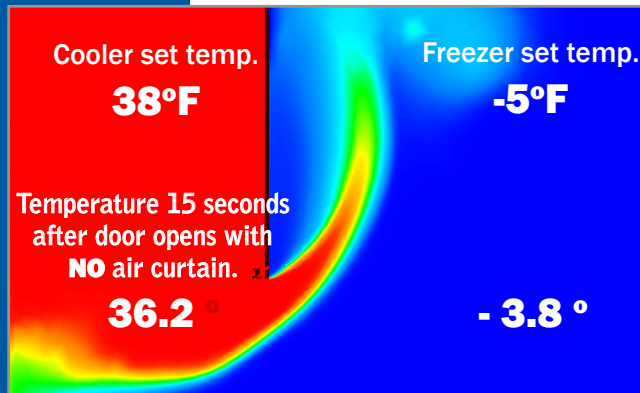
Cooler/Freezer Aire Curtains™ are designed to reduce the infiltration of air from the warmer side of the door opening to the colder side.

Computational Fluid Dynamics (CFD) Application Simulation

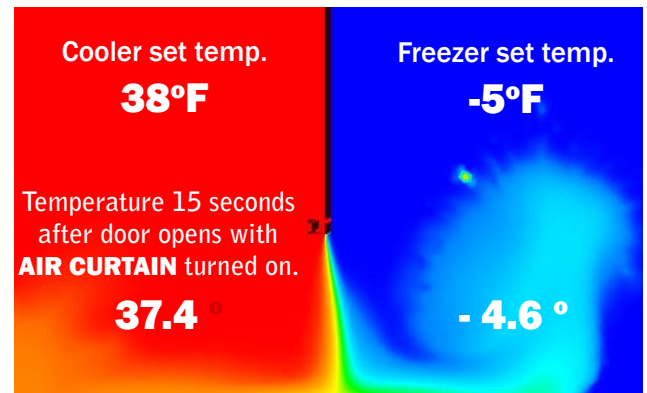
Door Height: 14 ft.

* Temperatures listed are averaged over the entire freezer and cooler.

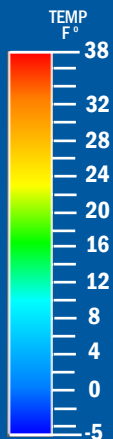
* Represents a section of a cooler/freezer application.



The warmer air flows freely through the open freezer doorway and rises to the ceiling when there is no air curtain operating at the opening. This causes the -5° freezer to rise in temperature to -3.8°. Meanwhile, the colder air flows across the floor into the warmer, 38° side, causing that temperature to drop to 36.2°.



When the air curtain is operating for the same 15 seconds, the barrier of air reduces the infiltration between environments. This results in a -4.6° freezer temperature (compared to the -5° set temperature) and a 37.4° cooler temperature (compared to the 38° set temperature).



Introducing heat.....

In addition to reducing infiltration, there are times when adding heat to the air curtain is recommended to solve moisture, frost and ice buildup issues.

- 1 Heat is typically used when the door is open to help reduce the fog that forms due to the difference in temperatures.
- 2 Heat is also used conservatively to reduce moisture on the door or frost and ice buildup on the door header. Heat will also help keep the floor dry.