## THE IMPACT OF WALK-IN COOLER EFFICIENCY

**Energy** Conservation

**Food Safety** 

Money Savings

The DOE has issued energy consumption standards for certain walk-in coolers based on the Energy Independence & Security Act of 2007 (HR 6, Section 312).

Air curtains satisfy this requirement when used as a method of minimizing infiltration when walk-in cooler doors are open.



## WHY INCREASE EFFICIENCY + CONSERVE ENERGY?

Infiltration of warm & moist air into walk-ins accounts for over 50% of compressor cooling load.

Refrigeration contributes about 20% to the total energy usage in restaurants.

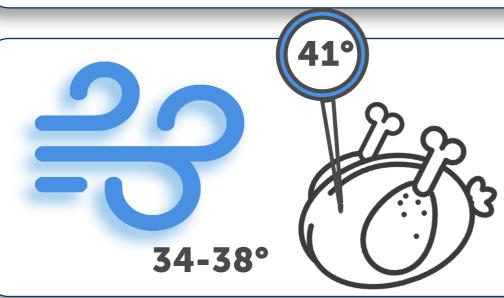
Almost 40% of total energy usage in supermarkets can be contributed to refrigeration.

Temperature fluctuations inside walk-in coolers can lead to an increased risk of foodborne illnesses.

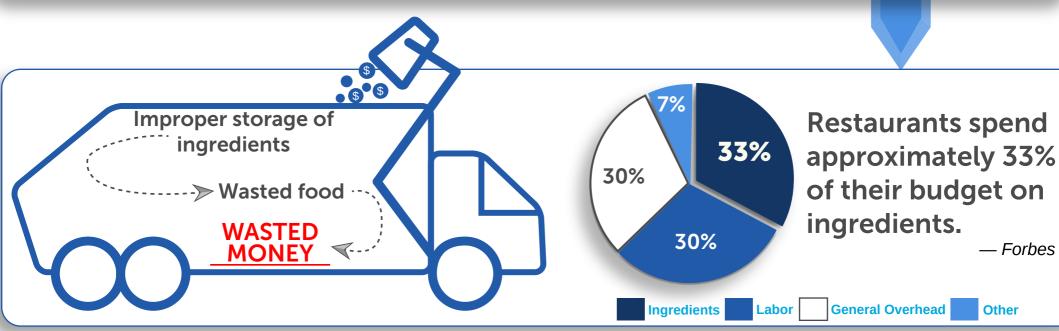
The CDC estimates that each year:

48M PEOPLE GET SICK FROM: **128K ARE HOSPITALIZED BY; 3K DIE OF** 

FOODBORNE ILLNESSES.



To keep perishable food at the safe internal temperature of 41° F, the walk-in cooler should be kept 2-3 degrees colder.



A Study Showed:

**One Air Curtain** + Walk-in Cooler =

**27% REDUCTION** in compressor run-times



Reduce compressor run-times **Increase efficiency Conserve energy** 

**SAVE \$\$\$** 

Save Energy

Prevent Illness

Save Money

When the Doors Are Open™



References:

https://www.foodhandler.com/refrigeration-tips-to-keep-your-food-safe/ Faramarzi, Ramin, Navaz, H. K., & Kamensky, K. Transient Air Infiltration/Exfiltration in Walk-In Coolers. United States. https://berner.com/wp-content/uploads/2014/12/Berner-Case-Study-Arbys-Walk-In-Cooler.pdf https://www.forbes.com/sites/priceonomics/2017/04/07/how-much-do-the-ingredients-cost-in-your-favorite-foods/#7f135c0511ed