

The Scalable Comprehensive Cooling Solution for Grocery E-commerce



Phononic's Actively-Cooled Freezer & Refrigerator Totes & Platform

The comprehensive cooling solution that scales with your store's needs.

Phononic's actively-cooled connected freezer and refrigerator totes provide the perfect temperature to maintain frozen and refrigerated orders for grocery retail's curbside operations, transport and delivery, as well as micro-fulfillment centers (MFCs). Maintaining cold chain integrity throughout the entire process, the tote and platform offer unmatched ROI, sustainability, and flexibility for your grocery e-commerce operations.



Strong ROI



Unsurpassed sustainability



Flexible



Compressor-free



Versatile



Scalable



Real-time insights



Demand-based energy savings



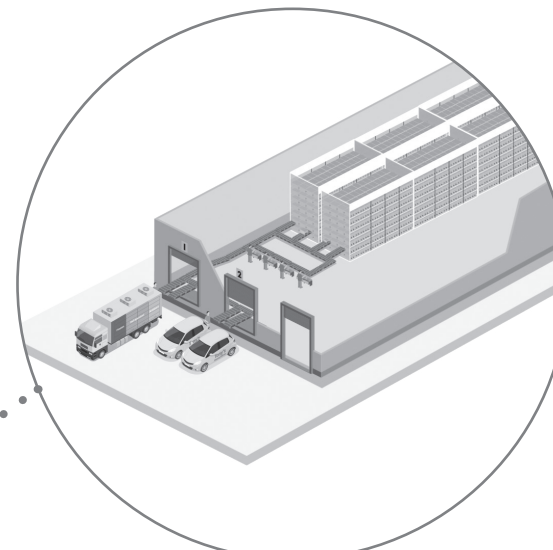
Improved customer experience



Phononic's Scaled Solution for Grocery Retail

Phononic's freezer and refrigerator totes offer the most comprehensive cooling solution available for grocery retailers, ensuring an improved customer experience as well as more streamlined labor efficiency and operations in Online grocery pickup (OGP) and curbside delivery.

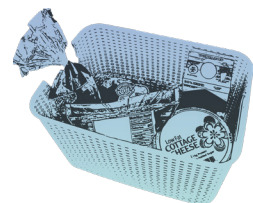
The Phononic cooling solution works within existing fulfillment systems and can scale where needed across small, medium to large retail operations, utilizing various power racks, carts and/or Vertical lift modules (VLM).



Phononic Tote plus accessories



Phononic totes



Tote liners



Powered carts



Vertical lift modules

A flexible, cost-effective and scalable cooling solution for e-commerce



SMALL - GROCERY RETAIL

- 10-50 orders per day all in one fulfillment solution
- Phononic refrigerator and freezer totes
- Reusable, removable liner fits inside the tote and eliminates single use bags
- Powered carts are used for order picking, staging, and curbside delivery



MEDIUM - GROCERY RETAIL

- 51-150 orders per day all in one fulfillment solution
- Phononic refrigerator and freezer totes
- Reusable, removable liner fits inside the tote and eliminates single use bags
- Upfit existing racking, with totes reused from previous powered carts
- Powered carts are retrofitted to be utilized as zone pick cart and curbside delivery cart



LARGE - MFC LARGE - VLM

- 150+ orders per day all in one fulfillment solution
- Totes are reused as order totes in MFC
- Reusable, removable liner fits inside the tote and eliminates single use bags
- Existing racking in spoke stores are used for staging orders in MFC
- Totes are reused in VLM
- Inexpensive capacity expansion with VLM and Phononic totes



The benefits of the Phonic Tote Platform



It's the first truly comprehensive solution for active, portable freezing and cooling, driving cold chain integrity across the entire fulfillment ecosystem.

Consistently under **2 minutes** from order staging to customer's car at curbside during the loading process

35% floor space utilization improvement

OVER
35%*

reduction in order loading time

OVER
335%

reduction in searching and staging cycle time

*Results from a recent pilot program with a leading North American grocery retailer



A more sustainable approach

Phononic's solid state cooling and refrigeration uses just water mixed with naturally available CO₂, with a GWP of just 1, delivering the lowest GWP rating in the industry. Since its solid state core is a fundamental departure from mechanical compressors, cooling applications are efficient, sustainable, quiet, more reliable, and more economical. Phononic's solid state design represents an exciting new way to reduce greenhouse gas emissions, support UN climate goals, while meeting the demanding performance needs of the market.

About: Phononic is reimagining cooling and heating in ways never thought possible. Its breakthrough solid state technology is transforming industries and creating new markets with innovative solutions that disrupt antiquated business models and incumbent technologies. Phononic is the critical element of innovation needed to radically change what it means to be efficient, effective and sustainable. The company has been named to the 2016, 2017 and 2019 CNBC Disruptor 50 lists, received the U.S. EPA's 2017 Emerging Tech Award, the R&D 100 Award and more.

Learn more at: www.phononic.com