



ADDISON

DEDICATED OUTDOOR AIR SPECIALISTS



FRESH AIR FOR RETAIL & GROCERY STORES

In the ever-evolving world of retail sales, companies are turning more towards the shopping experience and store fit-out as a way to boost sales. Many companies have executed large-scale remodels, with several adding increasing levels of fresh air provided by Addison DOAS units. Adding increased levels of fresh air into these spaces has a number of advantages for owners and customers.

INCREASED COMFORT

Reheating of overcooled air is the traditional practice for dehumidification. Retail grocery stores are often too cool due to the refrigeration case spill, and heaters must be simultaneously used to maintain comfort temperature. Addison products utilize liquid subcooling and dual circuit reheat for maximum heat reclaim to prevent overcooling in the space.

SUPPLY AIR AT LOW DEW POINT

Humidity has a tremendous impact on refrigeration operation and can be a hidden source of energy waste.

Refrigeration cases are more likely to fog up, or frost up at higher humidity levels. Addison units effectively control humidity in the complex supermarket environment, where conventional air conditioning falls short.

REFRIGERATION ENERGY SAVINGS

The energy consumption of refrigeration cases is directly impacted by the ambient moisture around the evaporator coil. A reduction in store humidity of 10% RH would save 10% of case energy (ASHRAE handbook 2003 2.3).

Low dew point ventilation air benefits the refrigeration cases by:

- Avoiding parasitic load associated with ice forming on evaporators
- Reducing the frequency of costly defrost cycles
- Shrinking or eliminating strip or anti-fog heaters on doors
- Preventing ice and condensation on product
- Extending product shelf life

SAFER. HEALTHIER. MORE PRODUCTIVE.

If recent events have taught us anything, it's that the importance of providing clean, fresh, conditioned air into their stores is extraordinarily important. Adding increased levels of fresh air not only benefits customers, but provides a safer, healthier, and more productive indoor environment for their employees.

Leading agencies such as the WHO (World Health Organization), ASHRAE (American Society of Heating Refrigeration and Air Conditioning Engineers), and REHVA (The Federation of European Heating, Ventilation and Air Conditioning Associations) have all recommended increased fresh air ventilation to increase the indoor air quality of building spaces.

ASHRAE: "provide indoor air quality that will be acceptable to human occupants and is intended to minimize the potential for adverse health effects" (ASHRAE 62.1)

WHO: "whenever possible to make sure the venue is well ventilated" (*Getting your workplace ready for COVID-19*)

REHVA: "The general advice is to supply as much outside air as reasonably possible. The key aspect is the amount of fresh air supplied per person." (REHVA COVID-19 Guidance Document, March 2020)

Increasing the volume of fresh air into the space has several other distinct advantages:

- Airborne particles such as viruses are not continually recirculated, but exhausted out of the building via continual air exchanges
- Keeping humidity levels steady at an optimum level to prohibit the ability of viruses, bacteria, and mold to reproduce and function
- Diluting airborne contaminants such as VOCs (Volatile Organic Compounds), CO₂, and other off-gas from products on the shelves
- Make-up air for exhaust from kitchens, bathrooms, and other operations within the store

*WE'RE ON A MISSION TO CREATE SOLUTIONS
FOR SAFER, HEALTHIER, AND MORE
PRODUCTIVE INDOOR ENVIRONMENTS*



THE ADDISON FAMILY OF PRODUCTS

Addison builds several models that fit almost any application and installation.

AK SERIES

Compact, lightweight footprint for replacement and space constrained dedicated outdoor air applications.



CAPACITY: 10 - 90 TONS

PR SERIES

A full suite of options and capacities to fit any application or building requiring dedicated outdoor air.



CAPACITY: 3 - 100 TONS

M SERIES

Modular dedicated outdoor air and recirculating air split systems designed for easy installation into any space.



CAPACITY: 3.5 - 80 TONS

STANDARD AND OPTIONAL FEATURES

- 2" Foam-Injected Double-Wall Construction (R-13)
- Hinged, Double-Walled Access Doors
- 6-Row Intertwined Air Coils
- Modulating Reheat Circuit
- Switchable SubCooling Circuit
- Scroll Compressors (Optional Lead VFD)
- All-Digital Controls with BAS Integration
- Direct Drive AC or EC Plenum Supply Blowers
- Modulating Electric or Gas Heat
- 2500 Hour Salt-Spray Rated Cabinet
- MicroChannel Condenser Coils
- Up to 6" of Media Filtration
- Multiple Service Access Points
- Reduced Cabinet Weight
- Compact Footprint
- Optional 10,000 Hour Corrosion Protection

ADDISON

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