

# ENERGY EFFICIENT DEFROST

## BACKGROUND

For a typical ceiling-hung refrigeration air cooler operating below freezing, 40 - 60% of the energy expended during a defrost cycle is lost to the room due to convection of heated air. Adding Colmac inlet air hoods and discharge duct socks effectively captures this heat resulting in energy savings, shortened defrost times, and more effective removal of frost and ice. Depending on the cost of power, temperature of the room, and frost loading, the cost of a single defrost cycle ranges from \$0.15 to \$0.20 per defrost per TR. For example, assuming 50% of the defrost heat is captured, a 300 TR freezer operating with 3 defrosts per day will see energy savings of as much as \$32,850 per year!



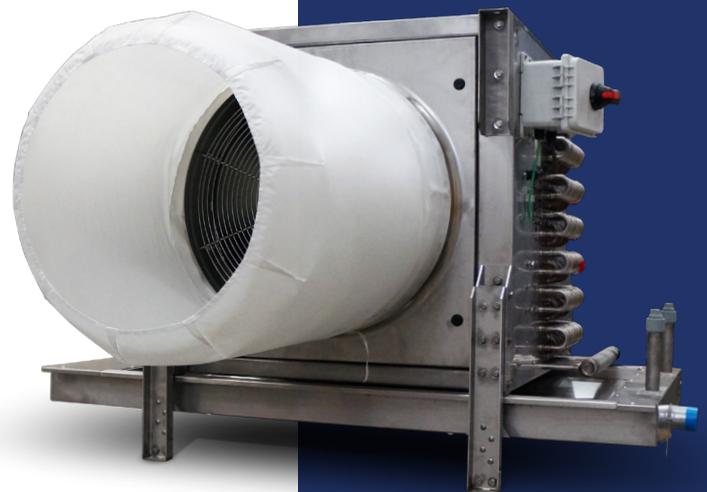
## RETURN AIR DEFROST HOODS

- Fully insulated hinged panels
- Collapses for shipment
- Easily opens to operating position
- Double wall construction with optional active heating
- Defrost faster and more completely
- Reduce frost formed on ceilings and walls

## DISCHARGE DUCT SOCKS

- Lightweight cleanable nylon duct fabric
- Inflates during fan operation
- Collapses to capture heat during defrost
- Passive operation requires minimum fan power for inflation

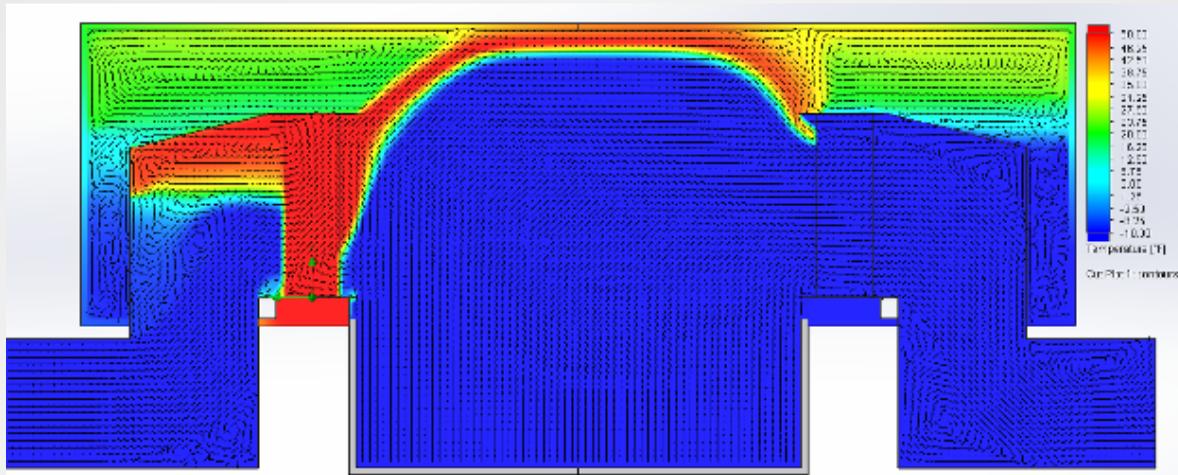
*Return air defrost hoods and discharge socks can be added as an option to any A+Series™ air cooler*



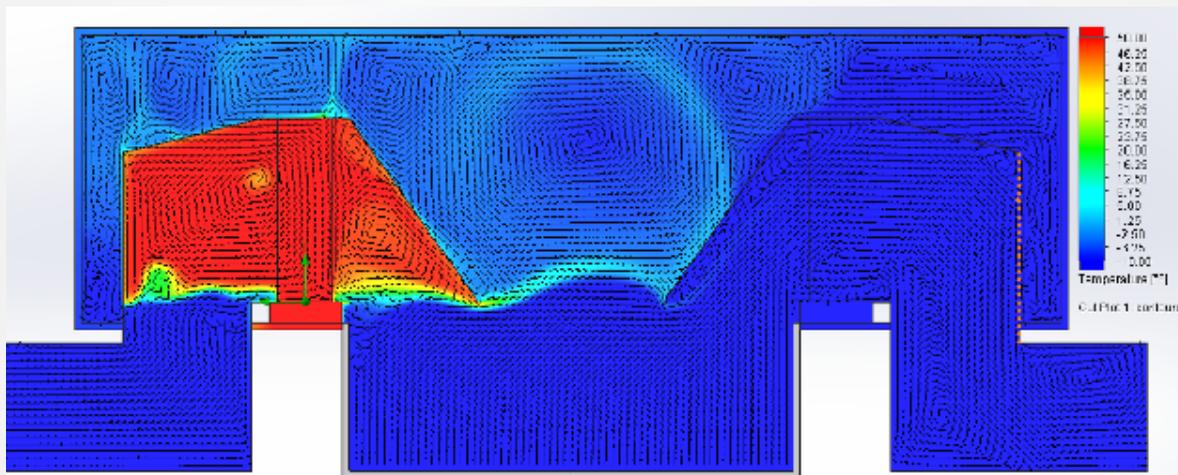


Manufacturing Inc.

# RETURN AIR DEFROST HOODS



(2) A+L Penthouse Without Hoods



(2) A+L Penthouse With Hoods

[www.colmaccoil.com](http://www.colmaccoil.com)

*"The Heat Transfer Experts"*

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CSA

ASME Sec. VIII,  
Canadian Registration Number, UL508, Canadian Standards Association