



POWERED AIRE INC.

Aire Time

FOR ARCHITECTS & ENGINEERS

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www.poweredaire.com

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Your Source For Information on Powered Aire Curtains



“Benefits of using an ACU (Air Curtain Unit) to protect an exterior door from the infiltration of outdoor air include cost and energy savings, increased comfort levels, increased safety, and a decrease in equipment maintenance.”

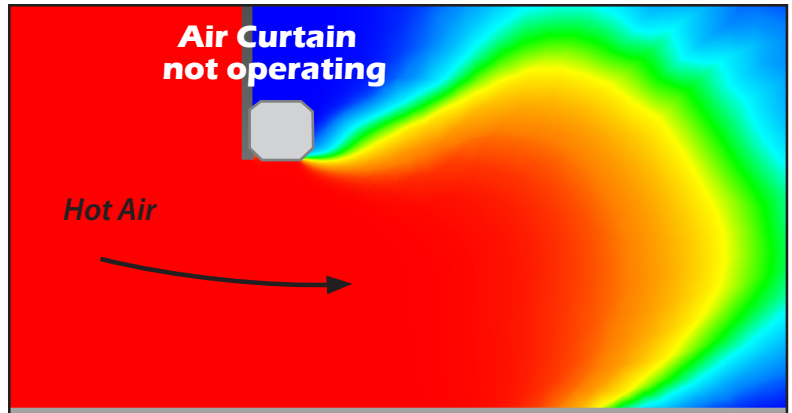
*AMCA Application Manual
for Air Curtains*

CFD Adds a VISUAL Element to Air Curtain Performance

It's colorful alright, but looks only scratch the surface when Computational Fluid Dynamics (CFD) is used to demonstrate air curtain performance.

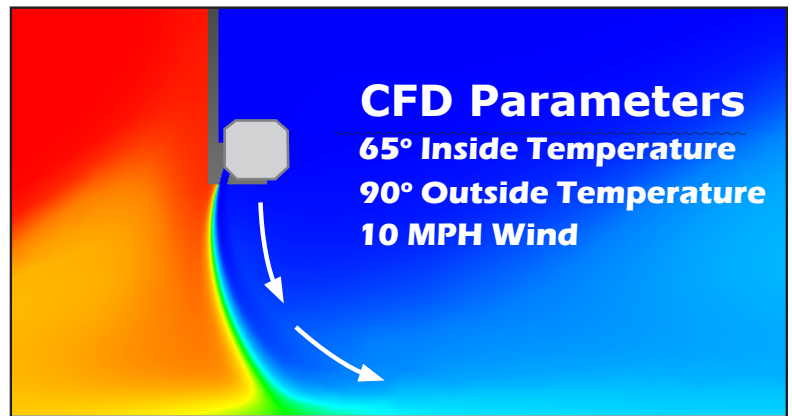
Air curtain performance is typically explained with numbers, including velocity of air (FPM) and volume of air (CFM) that the units discharge. Added to this is the Outlet Velocity Uniformity of air, or consistency of the air stream across the width and length of the opening, which is expressed as a percentage.

CFD simulations allow individuals to see what the numbers indicate -- that the FPM, resulting CFM (FPM multiplied by the area of the nozzle gives the CFM), and Uniformity produce a barrier of air that flows across the full height and width of the door opening to prevent infiltration of unconditioned outside air, flying insects, dust, fumes, cigarette smoke and small debris.



What's Happening Here?

The entry door opens and sweltering 90°F outside air immediately flows into the 65°F conditioned interior. This process occurs over and over as people enter the building. Meanwhile, the building's HVAC system works hard to attempt to maintain the 65°F thermostat set point. All this work means higher energy usage, and subsequent higher energy bills, to meet the demand.



What's Happening Here?

With a Powered Aire air curtain in place above the interior entryway, the unit activates each time the door opens. The resulting flow of downward air acts as a barrier to prevent the infiltration of unwelcome outside air. This helps keep the conditioned interior at a more consistent temperature.

Earn your AIA-CES or PDH Credit with Powered Aire

Powered Aire is an approved provider for AIA and PE Continuing Education Credits. In order to reach more interested professionals with our course, "The Benefits of Using Air Curtains to Protect Door Openings," we are developing our presentation into an online/live conferencing event. We would utilize an easily accessible program such as GoToMeeting for our online, instructor-led presentation. Those who complete the course are eligible for 1 hour of LU/HSW AIA continuing education credits. Engineers may also be eligible for PDH credits per their state's continuing education requirements.

We would like to hear from you if you or your office would be interested in learning about the benefits of air curtains and earn your continuing education credit! We hope to hear from you!

For more information visit: www.poweredaire.com