



Aesthetic In-Ceiling Mount Designs Drive Front Door Trends

One reason architects and engineers are specifying air curtains for healthcare lobbies, entrances and foyers is the industry's introductions of more aesthetic models.

For example, the in-ceiling mount designs, which can be installed in both suspended T-bar and finished ceiling applications, feature flush-mounted aluminum facings and decorative grilles that can be powder-coated nearly any interior furnishing color. In-ceiling mounts are a contrast to more conventional air curtains that are suspended over doors.

Some in-ceiling mount air curtains can accommodate doorways that have ceilings as high as 16 feet. Widths range from three feet for pedestrian doors to 12-feet for multiple doors.

The technology of In-ceiling mount air curtains has advanced recently as well as aesthetics. State-of-the-art models draw room air, versus older methods of drawing potentially contaminated air from inside the ceiling.

Saving Healthcare Construction and Operating Costs with Berner Air Curtains

By Stephen Benes, Regional Sales Manager, Berner International Corp.

HVAC trends point toward an increasing amount of consulting engineers that specify air curtains for healthcare applications.

Instead of just common shipping door or foodservice back door air curtain applications to prevent flying insect infiltration, air curtains have expanded to the front door, emergency room door and even foodservice walk-in cooler doors to reduce energy costs.

For example, the trend toward the front doors is very apparent to Don Peterson, P.E., a principal at consulting engineering firm, Robert G. Burkhardt & Associates, Chicago, which specializes in total HVAC design for healthcare facilities.

Burkhardt, which has specified HVAC for dozens of projects including Central DuPage Hospital, Winfield, Ill., Edward Hospital, Naperville, Ill., and Saint Joseph Hospital, Elgin, Ill., specifies air curtains on almost every new healthcare project now, according to Peterson. **Entry vestibules and automatic emergency room doors are the main targets in 90-percent of the projects because of the high foot traffic, energy losses and idling vehicle emission infiltration.**

Volume, velocity and uniformity of the air stream are critical factors in an air curtain's effectiveness, therefore it's important that air curtains perform up to manufacturers' specifications and are certified by The Air Movement & Control Association (AMCA-International), Arlington Heights, Ill. An AMCA rating label should rank as highly with engineers as Underwriters Laboratories, (UL), Northbrook, Ill., or National Sanitation Foundation (NSF), Ann Arbor, Mich., certifications.

A Vestibule Substitute

The use of air curtains as a substitute for vestibules which can cost up to 75-percent more in labor/materials than air curtains.

The International Energy Construction Code (IECC) doesn't yet recognize air curtains as vestibule alternatives, however, the recently-enacted International Green Construction Code (IgCC), which was published earlier this year, now allows air curtains as vestibule substitutes. The IgCC provides an approved overlay of green construction products to the IECC's base code.

Walk-In Cooler Air Curtains

Walk-in cooler doors, common to all healthcare facility foodservice operations, also waste energy when opened dozens of times daily. Therefore the Energy Policy and Conservation Act (EPCA) (Section 312) code now mandates the energy-conserving, air infiltration reduction methods of either strip curtains, spring-hinged swinging vinyl doors or other options, such as air curtains for all walk-in coolers manufactured after Jan. 1, 2009. **Berner International has recently introduced the Walk-In Cooler Kit, which easily retrofits existing walk-in coolers or can be added in new construction.**

Healthcare facility operators are continually looking for methods of cutting operational costs. The air curtain is an option with a very short payback of two years or less, in most cases, for reducing energy losses at the doorway.



Saving Energy and Creating Healthy, Comfortable Environments