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BREATH OF LIFE

Once-stalled Woman's
Hospital project
resurrected through
collaboration

FOCUS: DISASTER PLANNING | **SPOTLIGHT:** PATIENT ENTERTAINMENT

HVAC
SPECIAL
SUPPLEMENT
see inside!

Berner International air curtains save healthcare construction, operating costs

By Stephen Benes

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

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 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, 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. An AMCA rating label should rank as highly with engineers as Underwriters Laboratories or National Sanitation Foundation certifications.



In-ceiling mounts

For aesthetic designs, the In-Ceiling Mount Series by Berner International is driving air curtain specification for healthcare lobbies, entrances and foyers.

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 in nearly any interior furnishing color. Some ICM Series models can accommodate doorways with ceilings as high as 16 feet. Widths range from three feet for pedestrian doors to 12 feet for multiple doors.

A vestibule substitute

A new trend is 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 doesn't yet recognize air curtains as vestibule alternatives; however, the recently enacted International Green Construction Code 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 (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 to cut 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.



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