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Berner International Corp. The Café at the Frick Museum

The popular white tablecloth dining spot, which is a converted coach house on the former five acre estate-turned-museum grounds of industrialist, the late Henry Clay Frick, is quaint, but small at 500 square feet. The entrance has an air lock to negate drafts, but the huge crowds The Café attracts regularly stretch into long waiting lines that typically hold open the door. “We (patrons and employees) all froze in the winter, before we devised the air curtain solution,” said John Muth, The Café’s manager.

Remodeling the restaurant’s entrance structure was not a viable option because of the significant cost and down-time associated with construction retrofits. Also, façade changes would affect the restaurant’s turn-of-the-century aesthetics, not to mention other nearby Frick Art & Historical Center buildings such as Frick’s mansion, an art museum, the car/carriage museum, a greenhouse and other surrounding buildings that attract nearly 150,000 tourists annually.

Instead of remodeling, installing an air curtain is an inexpensive and aesthetic solution that’s popularly used today in entryways of retail stores, restaurants, grocery stores, office buildings, hotels and industrial facilities to segregate the differing air temperatures of two adjoining spaces.

At The Café, a Berner International Zephyr model air curtain was specified along with Berner’s digital control technology, the Intelliswitch™. The air curtain was mounted on the inside top of the 7 x 3-foot doorway and provides a downward air stream that’s directed outside the doorway and away from diners at a 15-degree angle. The Café’s air curtain includes a thermostatically-controlled electric heater that warms the air stream only when temperatures drop below 74°F. The heater is also programmed to operate for supplemental heating when the door isn’t open and the Café’s ambient room temperature drops below the set point.

Typical wind conditions, outdoor temperatures as well as insects can’t permeate the 900-cfm air stream, therefore the dining room temperature stays within a one-degree tolerance of Muth’s preferred 74°F set point. A sensor activates the unit when the door is opened. Once the door is closed, the controller is programmed to run the air curtain a few more seconds until the door area’s temperature is raised to ambient temperature. After spending a day running electric above The Café’s suspended ceiling from a backroom control panel to the entrance, John Wolfendale, Frick’s buildings supervisor, installed the air door in just one morning without disrupting diners.

Another important consideration is air curtain noise in an intimate setting such as The Café. The Zephyr operates quietly because of the following design considerations: 1. the Zephyr’s 10-speed fan operates in its mid-range at The Café, which is a quieter decibel rating than units with just on/off switches; 2. a tangential blower wheel design versus a more conventional centrifugal fan approach also adds to the quiet operation. “The most important consideration is noise,” said Wolfendale. “The multiple fan speeds give us the flexibility to operate the air curtain at a slower fan speed that is very quiet.”

While the air curtain’s main purpose is air comfort in the winter, it has an energy-saving benefit when used in the summer to segregate the hot humid outdoor air from indoor air conditioning, thus reducing the cooling load.

Another personal touch is the Zephyr’s aluminum anodized bronze finish, which aesthetically matches the accompanying metal door frame of The Café’s French door-style entryway. The Café now provides the ultimate dining experience with the help of air curtains.



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