

Venmar CES Calls The Right Numbers

Tobacco Smoke



The Problem

When the Veterans of Foreign Wars (VFW) Chapter in Athens, Ohio was considering a new building, one of their main objectives was to minimize the problems created by environmental tobacco smoke. It was clear that declining attendance at bingo, a significant source of income, combined with complaints from bar patrons had to be addressed if the new facility was going to generate sufficient revenue. Maintenance and repair costs due to smoke damage only worsened the situation.

In an effort to manage the problem in the existing building, the VFW used electronic air cleaners, large wall mount exhaust fans, and open windows - even in the dead of winter. None of these attempts produced satisfactory results.



*"We're just basically very, very satisfied."
Joe Sanders of the VFW*

The Solution

Desperate to find a solution that would meet customer, building and budget needs, the Chapter called upon Dan Inman, a local HVAC contractor. Dan and the VFW agreed that Energy Recovery Ventilation (ERV) would provide cost effective control of their indoor air quality problems.

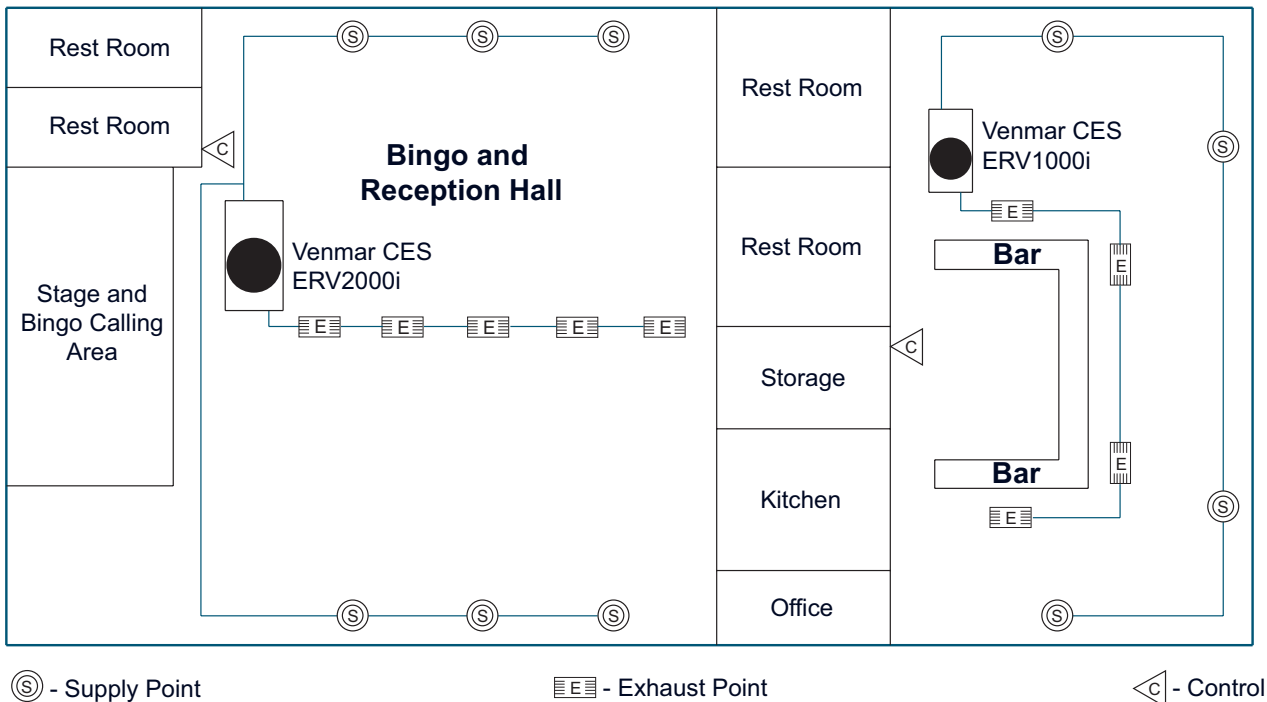
The new 3600 square foot building was completed in the fall of 1995. Although the maximum occupancy allowed was 100 patrons in the bar and 200 players in the bingo hall, the VFW decided to provide 20 cfm per person of fresh air ventilation for an average of 50 bar patrons and 100 bingo players. This strategy permitted them to stay within their budget while meeting the needs of their patrons for the majority of occupied hours. Because the bar and bingo hall are physically separated, two ERVs were installed; a Venmar CES ERV2000i in the bingo hall and an ERV1000i in the bar.

Shortly after moving into the new building, the members decided to prove to themselves that their decision was correct. They filled the hall with smoke using a theatrical smoke generator and turned on the ventilation system. The smoke disappeared in five minutes, converting skeptics to believers.

ERVs were chosen for their exceptional year round performance. While providing excellent recovery during the cold winter months, they also reject moisture during the warm, humid summer months which reduces the load on cooling systems while increasing indoor comfort.

The Results

Today bingo attendance has increased and excessive tobacco smoke is not the main topic of conversation! As Joe Sanders of the VFW says, "We're just basically very, very satisfied."



Standards and Requirements

Reference standard	ASHRAE 62-89	
CFM Per Person	20	
Building type	Bar and Bingo Hall	
Occupancy	Bar: Max. 100	Bingo Hall: Max. 200
Ventilation required	Bar: 1000 cfm	Bingo Hall: 2000 cfm



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