

RenewAire Case Study: Clyde's Restaurant at Mark Center



A Breath of Fresh Air for Clyde's Restaurant

Clyde's Restaurants have been part of the hospitality scene in the Washington, D.C. area since 1963 when their first restaurant opened in Georgetown. It became an "in place" for local university students and young professionals, and a "must" stop for tourists. The first Clyde's also made entertainment history when its happy hour menu inspired the hit song, "Afternoon Delight."

The chain now includes 12 restaurants in the greater D.C. area. The newest Clyde's opened in 1998 across the Potomac from the capital in Alexandria, Virginia. Though it hasn't inspired a song, the Alexandria Clyde's has made its own history: It was the first of Clyde's restaurants to use a RenewAire energy recovery ventilator (ERV).

Smoke Getting in Your Eyes?

Back in the 1960s when the first Clyde's opened, no one had heard of non-smokers' rights and the term "secondhand smoke" didn't exist. But by the time the Alexandria restaurant was built, non-smokers were a potent group and secondhand smoke was a known health hazard. Most restaurant dining rooms were smoke-free. And smoking was allowed in restaurant bars only if ventilation, along with barriers like walls, virtually prevented smoke from reaching non-smoking areas.

The ventilation system in Clyde's bar had to do more than bring in fresh air. To accommodate smoking and non-smoking customers—and comply with air quality codes—it also had to reduce the pollutants from the secondhand smoke. The bar also needed a combined system that could keep a crowded bar cool and comfortable during a typical Virginia summer, when temperature and humidity often get stalled in the 90s for weeks at a time.



Ordering Up!

The contractor for the Clyde's project was CG Allen Company, which specializes in the design and construction of commercial restaurants. One of Allen's first tasks was to consult with the HVAC engineers whose plan called for a wringer system coupled with a Trane air-handler. He was hoping to find a ventilator that was simpler and less expensive than the wringer system.

He found what he was looking for in RenewAire's ERV. Instead of rotating wheels, RenewAire's ERV uses an exchange core made of highly engineered resin plates. The plates allow heat and moisture to transfer from one air stream to another to reduce heating and cooling bills. In winter, the core recaptures heat from the exhaust air to warm the incoming air. And in summer, it pre-conditions incoming air by transferring heat and moisture to the exhaust.

Allen was certain that the RenewAire ERV was the ideal ventilator for the job. So certain, in fact, that he offered Clyde's Restaurant Group a guarantee: "I'll install the unit, and design and install the ductwork. If you aren't satisfied with the performance, I'll install the replacement system for free."

Five years later, the RenewAire ERV is still in place, giving fresh air and service that exceeds expectations to the customers and bar staff at Clyde's in Alexandria.



A Five-Star Review ★★★★★

It's easy to see why CG Allen was so enthusiastic about the RenewAire ERV and why it's exceeded even his expectations.

- The RenewAire ERV pre-conditions the hot and sticky stuff that passes for air in Virginia's summer months, cooling it from 100° to 80°. This reduces A/C demand from 23 tons to 12.7 tons – effectively cutting the cooling system's work by half.
- The resulting decrease in energy cost allowed for recovery of the installation cost of the RenewAire equipment (2 HE8X900RT units) within the first 3 years of operation.
- RenewAire improves indoor air quality by exhausting stale air and supplying fresh air simultaneously. And at Clyde's in Alexandria, CG Allen's design of the ductwork and exhaust system for the bar made the most of the performance features of RenewAire's ERV. Bartenders say the air quality in the bar makes it one of the best places they've worked. And customers claim that they can sit next to someone who's smoking a cigar and not be able to smell it.
- The plates in the exchange core keep the fresh outside air stream separate from the stale exhaust air. In fact, RenewAire is the *only* ERV that is ARI-certified as having zero exhaust air transfer at normal, balanced operating conditions. This makes RenewAire ideal for food service, health care, and other facilities that need to keep outgoing pollutants from getting into fresh air.
- The RenewAire core has no moving parts, so it requires less maintenance and will last longer than more complex equipment. For example, maintenance costs for a rotating wheel system over 10 years can easily double the original price tag.
- RenewAire's ERV works as well for upgrading or retrofitting an existing system as it does in new construction. In fact, Clyde's is using a RenewAire ERV to upgrade the system at its restaurant in Tyson's Corner, Virginia. And CG Allen will be installing a RenewAire ERV unit at the Congressional Country Club in Bethesda, Maryland.

With fresh air ventilation, Clyde's Restaurants has found an effective way to resolve a problem that hospitality businesses struggle with: peaceably accommodating smokers and non-smokers in a common area. In RenewAire, they have chosen the most reliable means of achieving the desired ventilation rates at the lowest net cost.