



# RUPPAIR®

## THE IDEAL HVAC SOLUTION

### CASE STUDY APPLICATION

### COMMERCIAL DINING HVAC

### PRODUCT SPOTLIGHT

### ONE CHAIN, TWO LOCATIONS – RUPPAIR’S HVAC UNIT VS. TRADITIONAL RTU

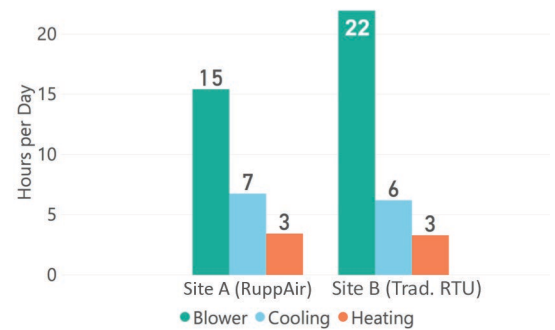
RuppAir serves and monitors a restaurant chain with two locations in Kansas City. One of the locations, **Site A**, utilizes **RuppAir’s HVAC Unit** to handle the HVAC demands and the other location, **Site B**, utilizes traditional (non-modulating) On/Off rooftop units (**Trad. RTU**). The restaurants have nearly identical building design parameters and operation patterns. RuppAir analyzed the space condition and equipment usage data at each site and compared a full year of performance.

Data trends over the full year suggest RuppAir’s HVAC Unit as the superior solution:

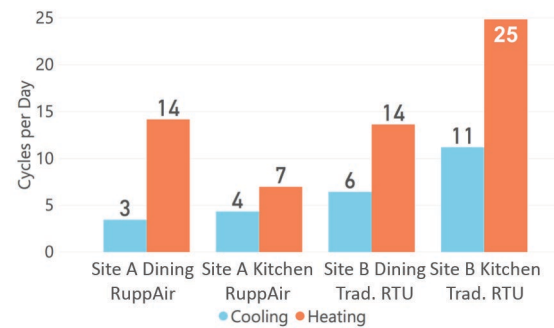
- **More precise space temperatures show improved comfort**
- **Lower overall utility costs**
  - Despite fully conditioning the kitchen’s make-up air (MUA)
- **Proper runtime from superior controls and overnight setbacks**
  - 32% reduction by eliminating excess overnight HVAC usage
- **Less equipment cycling from full modulation extends unit lifetime**
  - 59% fewer cooling equipment cycles
  - 46% fewer heating equipment cycles
- **Reduced need to mix return air to condition outside air**
  - Met the same conditioning demands with 57% less total air movement and significantly cut blower energy demands
  - Less total air allows for downsized, reduced-cost ductwork

### CONCLUSION

As demonstrated by the data gathered throughout a full year, RuppAir’s HVAC Unit offers a vastly superior solution for handling outside air precisely, cost-effectively, and in a manner that protects component lifetimes when compared to a traditional RTU.



Average Equipment Use per Day



Average Equipment Cycles per Day



Space Temperature Ranges When Occupied

Location	Customer Volume	Electricity	Natural Gas
Site A (RuppAir)	156,575	\$24,884	\$5,257
Site B (Trad. RTU)	148,175	\$25,675	\$6,242
Comparison	6% Busier	3% Savings	16% Savings

Utility Comparison:  
Site A (RuppAir’s HVAC Unit) vs. Site B (Trad. RTU)