

PROJECT SUMMARY

LOCATION:

Lincolnshire, IL

PROJECT TYPE:

Supplying heating, cooling and fresh air to communal spaces in a luxury apartment complex

BUILDING USAGE:

Apartment Complex

GOAL:

Ensure a comfortable, safe and healthy environment to residents and staff

FUNCTIONAL MANDATORIES:

Reliable performance, quiet operation, superior Indoor Air Quality (IAQ), and individually controlled units for each space

PROJECT LAUNCH:

2018

AIREDALE BY MODINE PRODUCT:

ClassMate® cooling and heat pump

UNITS INSTALLED:

1

Airedale's ClassMate® Units Help Keep Communal Spaces Comfortable

THE CHALLENGE

444 Social is a luxury apartment complex in Lincolnshire, Illinois. The 302-unit complex features a two-story community hub with floor to ceiling glass walls, a mid-century modern inspired conversation pit in the main lobby, and lively communal spaces.

Project owners wanted to find a way to unobtrusively heat, cool, and ventilate the communal spaces in the 444 Social complex. The building does not have a boiler suited for hydronic heating, and designers required that no mechanical equipment or air handlers be installed outside the space or on the roof of the building.

THE SOLUTION

During the design process, The Engineering Studio, Inc., the main engineer on the project, approached FloMech, Inc., to find a solution to the cooling requirements. The company had previously used Modine HVAC products in school building projects and thought the Airedale ClassMate® DX Cooling and Heat Pump would be a good fit for the space.





It is the quietest single packaged product of its type on the market today. Engineered for efficiency, noise reduction and a small footprint, ClassMate® cooling and heat pumps include features such as:

- High efficiency heat pump heating with high COP reduces heating costs and supports clean electrification
- Modine Controls System provides head pressure control with hot gas reheat selection for enhanced dehumidification
- Advanced electrically commutated motor (ECM) on fans and 2-stage compressor technologies for decreased sound and power output
- No plenum required for additional hot gas reheat, hot water or electric heat coils
- Higher EER, increased performance
- Less refrigerant, lower energy costs
- Sound-deadening compressor acoustic wrap for even quieter operation
- Energy recovery wheel with up to 500 CFM of recovery
- BACnet compatible with the Modine Controls System
- MERV 13 filtration

THE RESULTS

The general contractor fit the Airedale ClassMate® DX Cooling and Heat Pump units into the communal spaces, partially building them into the walls. The units are not visible to residents but are able to meet the heating and cooling needs for the common areas.

As package DX systems, ClassMate® units are compact and unobtrusive. The units are a complete HVAC package with all heating, ventilating, and air conditioning components inside a noise suppressing cabinet. Even with the compressor running, the equipment operates very quietly. While the unit can be compatible with a BACnet building management system, the onboard programmable microprocessor controller allows for stand-alone operation with no remote connection required. The units are easily serviced from the front of the cabinet which permits greater flexibility in installation where space is at a premium.

