

Greenheck Project Profile

Promerus

Akron, OH

- **Engineer:**

Tec, Inc.
Eastlake, OH

- **Mechanical Contractor:**

Creative Comfort Systems
Hinckley, OH

- **Greenheck Representative:**

Air Control Products, Inc.
Broadview Heights, OH



Promerus 38,000 square foot building prior to renovation.

The Challenge

- **Provide the correct air changes and temperature control for laboratory, office, and warehouse spaces .**
- **Proper exhaust and dilution of laboratory fumes and odors.**
- **Lack of usable space for rooftop ventilation equipment.**

Promerus LLC is an Akron, Ohio company and a leader in cyclic olefin polymer development and production. Semiconductors and advanced electronic packaging are some of the products using this polymer. The company recently renovated a 38,000 square foot building to include chemical, development, and analytical laboratories, a clean room, and

office space in addition to existing warehouse space.

The facility presented challenges for ventilation equipment. The initial plan used an existing mezzanine to install exhaust fan units. However, there was not enough space and the mezzanine was removed.

Installing rooftop equipment posed another challenge. The standing seam metal roof could not support any large HVAC units without creating emergency egress issues. Furthermore, the work had to be completed without much downtime.



Greenheck's Solution

- (7) RV Dedicated Outdoor Air System Units (DOAS)
- (5) Vektor®-MD high plume dilution laboratory exhaust fans
- (6) USF utility sets
- (1) CUBE exhaust fan

The decision to use Greenheck products was solidified with the assistance of the Greenheck HVAC University Learning Center for DOAS and Energy Recovery. This mobile trailer offered a hands-on experience with products including model RV and left a very favorable impression with the engineer. She stated that it was very educational and “seeing the inner fans, motors, coils, etc., and how the different components interact with the versatile controls was impressive.”

Model RV DOAS units supply 100% outside air or mixtures of outdoor and return air. This flexibility allows for 100% outdoor air, variable air volume, and single-zone use applications.



Model RV offers flexibility and cost savings when structural concerns prevent rooftop placement.

RV units typically mount on rooftops. However, the building's roof could not support the seven units and required an alternate plan. Model RV offers flexibility in providing side duct connections in addition to standard connections eliminating the need for costly plenum curbs to supply fresh air to the building. This flexibility allowed for placement on concrete slabs next to the building.

The laboratories used by Promerus emit a variety of fumes and odors. The Vektor-MD laboratory exhaust units offer high plume dilution. The exhausted fumes and odors from the labs dilute high above air intakes, preventing

re-entrainment into any building. Reinforced structural supports allowed placement of the five Vektor models on the building's roof, eliminating any emergency egress issues.

Proper air exhaust also required installing other fan units. These included utility sets and a CUBE fan to remove stale air from the office area and warehouse.



Promerus roofline after renovations.

The Results

The remodel was completed with no issues. The contractor was very pleased with Greenheck products, speaking highly of product quality, on-time shipping,

and being ready for installation without any challenges. Promerus management also was pleased stating, that “During the entire process of design, installation, and

commissioning, the project was a success. The units have performed well, meeting the varied needs of our new facility.”

