



PROJECT DETAILS:

East River Tower Apartments located at 1725 York Avenue, New York, NY in the Yorkville neighborhood of Manhattan

PROJECT TEAM:

- Contractor/Installer: United Air Conditioning Corp
- Engineer: Patti & Anthes
- Balancing Report: BSI Testing & Air Balancing

BUILDING TYPE:

- High-rise, Co-op Building
- Size: 33-story with 259 units
- Year Built: 1971

PRODUCTS SUPPLIED:

- High-Pressure eFlow-CARs in custom Mounting Plates for Hallway Fresh Air Supply

Ventilation Upgrade Enhances Indoor Air Quality and Comfort at 1725 York Avenue, New York, NY

Project Highlights

Comprehensive Ventilation System Upgrade:

- **Installation of High-Pressure CARs:** The project involved installing high-pressure CARs in custom mounting plates for the hallway fresh air supply, tailored to meet the building's specific requirements
- **Third-Party Validation:** BSI Testing & Air Balancing conducted independent testing, confirming the system's performance and adherence to required airflow standards
- **Post-Installation Ventilation Performance:** The building achieved near-perfect ventilation results, with actual CFM measurements closely matching the required standards across all floors
- **Long-Term Benefits:** The system upgrades provide long-term sustainability, reducing the need for frequent maintenance and ensuring consistent performance

Challenges Before Installation

- Poor Indoor Air Quality
- Kitchen Odor Spread Throughout the Building
- Unbalanced Ventilation Due to Seasonal Changes and Stack Effect

The Role of eFlow-CARs in Enhancing Indoor Air Quality

The installation of eFlow high-pressure CARs played a critical role in transforming the indoor air quality and ventilation balance at East River Tower. Designed to maintain consistent airflow rates, these regulators ensured that each area of the building received proper ventilation, a challenge often faced in high-rise buildings.

The factory-calibrated eFlow-CARs were installed without needing external power sources, simplifying installation and contributing to long-term energy savings. As a result, the building now enjoys balanced ventilation, significantly improving indoor air quality and resident comfort.

This upgrade demonstrates the effectiveness of eFlow-Constant Airflow Regulators, an advanced ventilation technology in modernizing older buildings and enhancing living standards.

Project Achievements

1725 York Avenue, New York, NY Energy & IAQ Improvements:

- **Consistent Indoor Air Quality:** The installation of eFlow-Constant Airflow Regulators has significantly improved indoor air quality throughout the 33-story building by eliminating the spread of kitchen odors and other contaminants. This upgrade also effectively resolved the stack effect, ensuring balanced and consistent airflow on every floor
- **Balanced Ventilation:** Achieved optimal air distribution on all floors, resolving issues related to seasonal changes that previously led to unbalanced ventilation
- **Energy Efficiency:** Enhanced the building's energy performance by ensuring that the ventilation system operates efficiently, reducing energy consumption
- **Resident Comfort:** The upgraded ventilation system has led to a noticeable improvement in resident comfort, especially in areas previously affected by poor air circulation

Independent Validation by BSI Testing & Air Balancing

BSI Testing & Air Balancing conducted thorough independent validation to ensure the system met required airflow standards. Their tests confirmed that the actual cubic feet per minute (CFM) closely matched the design values, with variances within a tight tolerance of $\pm 5\%$. This process confirmed the effectiveness of eFlow-CARs in achieving a balanced and efficient ventilation system.

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Below is a summary of the post-installation ventilation test report provided by BSI Testing & Air Balancing.

Required vs. Actual CFM with eFlow-CAR Installed		
Floor	Required CFM	Actual CFM
35thFloor	315	322
34thFloor	315	315
33rdFloor	315	310
32ndFloor	315	307
31stFloor	315	316
30thFloor	315	320
29thFloor	315	321
28thFloor	315	320
27thFloor	310	315
26thFloor	310	310
25thFloor	310	308
24thFloor	310	311
23rdFloor	310	320
22ndFloor	310	322
21stFloor	310	316
20thFloor	310	325

The successful retrofit at 1725 York Avenue, New York, NY demonstrates the transformative impact of installing eFlow-Constant Airflow Regulators in older buildings. By addressing and resolving the stack effect, East River Tower now benefits from enhanced indoor air quality, balanced ventilation, and improved energy efficiency. These upgrades have not only resolved long-standing issues but also set a new standard for similar urban projects.