



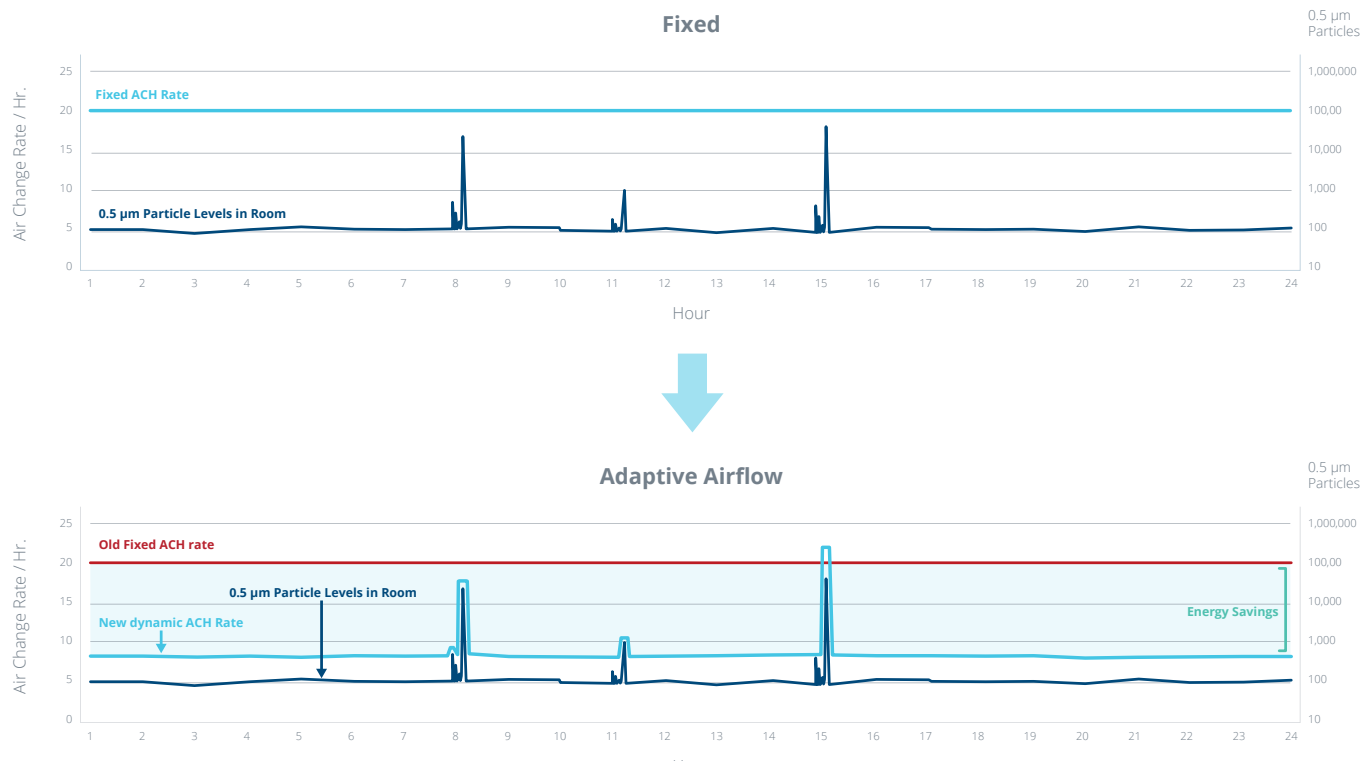
Cleanroom Adaptive Airflow

Aircuity delivers precise multi-parameter particle measurement to enable **adaptive airflow** in cleanrooms of ISO 7 and 8. Airflow is monitored continuously and adapted to maintain ISO standards for particle levels, providing a significant energy reduction and carbon footprint mitigation.

Why Aircuity for Cleanrooms?

Cleanrooms are the most energy intensive spaces per square foot in the built environment. Adaptive airflow provides a better data driven approach to maintaining stringent requirements while allowing clients to operate them more efficiently. Aircuity’s adaptive airflow is proven to effectively maintain required airflow levels through continuous measurement and control. Implementing adaptive airflow in cleanrooms, either in new construction or as a retrofit, is an intelligent control strategy and one of the most impactful energy and carbon conservation measures available.

Example of Energy Savings from Fixed to Adaptive Airflow



Minimum ACH rate is adjustable • 24/7 monitoring versus spot checking • Savings are adjustable based on performance



Frequently Asked Questions

1. Where does Aircuity apply?

The Aircuity platform applies to cleanrooms classified as ISO 7 and 8.

2. What particle sizes do we measure?

Aircuity measures particles in the 0.3–0.5 μm and 0.5–2.5 μm ranges to ensure continuous monitoring that adheres to ISO Class 7 and 8 specifications¹.

3. How does adaptive airflow impact pressurization?

Adaptive airflow does not affect pressurization. The offsets (the delta) between supply and exhaust will remain the same.

4. How frequently does the system sample?

An average cycle time for an ISO 7 space is 5–8 minutes and ISO 8 is typically 10–15. The cycle time is configurable based on a client's specification.

5. Can this system be used in validated spaces?

Yes, adaptive airflow can be implemented in validated spaces. There is a path to continue using the same validation procedures and devices for periodic / spot measurement for validation purposes OR revalidating the room with the Aircuity measurement. It is most often a transition between the two measurement methods.

6. How is the system maintained and sensors calibrated?

Aircuity's system can be calibrated as often as required based on the specific application without intrusion into the space; all of which is included under the Aircuity Assurance Services Commitment.

¹. This refers to non-viable particles only. Viable monitoring would be done using existing client testing protocols.

LEARN MORE

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