FläktGroup® SEMCO®

NATIONAL MUSEUM OF AFRICAN AMERICAN MUSIC

CASE STUDY

In the vibrant city of music, Nashville, Tennessee, the National Museum of African American Music (NMAAM), showcases the cultural heritage and musical legacy of African Americans. NMAAM is not just a museum but an interactive experience that invites visitors to explore the profound impact that African American musicians have had on American culture.

FläktGroup® SEMCO's 3fficiency system quietly enhances visitor's expereinces by ensuring that the air within the museum is comfortable and quiet.

CHALLENGE:

Creating good indoor air quality while maintaining acoustical integrity.

During the initial planning and designing of NMAAM a unique challenge was posed. The challenge involved finding a way to achieve superior air quality without compromising the acoustical integrity of the music being exhibited. The museum's diverse layout, includes exhibit areas and performance venues that required a solution that would provide a consistently healthy indoor atmosphere while preserving sound quality.

SOLUTION:

Install SEMCO's 3fficiency system, which is comprised of chilled beams, a Neuton® Pump, and Pinnacle®

When it came time to develop a solution, the architects at Harold Thompson and the engineers at Krell Engineering, approached FläktGroup SEMCO® to see if they could develop a system to meet these requirements.

FläktGroup SEMCO's strategy focused on creating a logical and coherent integration of air quality management and acoustical design with the 3fficiency system.

The Pinnacle's True 3Å total energy recovery wheel is capable of capturing 99.95% of all airborne contaminants and is pivotal in ensuring optimal indoor air quality.

Eliminating contaminants not only protects the health of visitors but also helps keeps the museum's artifacts and displays from deteriorating. The components of FläktGroup SEMCO's 3fficiency system allow for precise airflow, temperature, and humidity control, creating an ideal environment.

Collaborating with acoustical consultants ensured that the installed system was whisper quiet, preserving the museum's sonic landscape and enhancing the overall auditory experience.

IN CONCLUSION

3fficiency helps NMAAM provide a world-class visitor experience, by creating a comfortable space that invites guests to explore the museum for as long as they would like and experience the museum as curators intended.

3FFICIENCY KEY POINTS

- **Contaminant Free Air** — The Pinnacle's True 3Å, total energy recovery wheel, captures 99.95 % of contaminants. It is able to prevent the transfer of airborne contaminants 3 angstroms or larger.

- **Optimized Acoustics** — By installing SEMCO chilled beams NMAAM gained precision airflow control and minimized noise levels, allowing for museum's acoustical integrity to be preserved while enhancing the overall auditory experience for guests.

- **Precise Environmental Control** — The 3fficiency system utilizes the Pinnacle primary ventilation system (PVS), Neuton Pump Module, and Chilled Beams to provide precise control over airflow, temperature and humidity, creating an optimal environment for both visitor's and the museum's artifacts.

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Energy Efficiency — FläktGroup SEMCO's 3fficiency system provides increased energy efficiency, aligning with sustainable practices while ensuring a comfortable indoor climate.

The National Museum of African American Music exemplifies the power of collaboration and innovative design. FläktGroup SEMCO's expertise in air quality solutions and commitment to acoustic excellence have played a crucial role in creating a museum that not only preserves cultural heritage but also enhances the human experience and celebrates the vibrant legacy of African American music.

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