CASE STUDY

Plasma Air Helps Louisiana-Based Academic Institution Reduce Odors and Improve Indoor Air Quality at its Biology Lab Building

- Reduced Chemical Odors
- Directly Installed into Existing HVAC System
- Substantially Improved Air Quality

The Plasma Air Model PA600 is a needle point brush type ionizer producing an equal amount of positive and negative ions. This unit is highly versatile as it may be installed in an air handling unit, fan coil unit, PTAC, heat pump and even a ductless split system. The model PA600 is self contained in a potted ABS box which has a molded flange with mounting holes. Models are available to accept 12V DC, 24V AC, 120V AC and 230V AC without the use of an external power supply device. The PA600 is protected with a 500mA glass cartridge fuse. Each PA600 ionization unit is capable of ionizing a supply airflow of 2,400 CFM.

PLASMA AIR INTERNATIONAL

Positive Air Quality - Negative Energy Costs

Universities

BACKGROUND

University buildings are designed to be a welcoming environment in which students can learn and flourish. As evidenced in a study published in Nature Neuroscience, negative odors hinder the overall performance of students within an educational setting, distracting their minds from absorbing new information and negatively affecting their ability to make thoughtful decisions.

Buildings related to the field of biology are subject to this problem due to the very nature of the field. Students in a biology lab commonly utilize chemicals and organic compounds, many of which release unpleasant odors into the air. As the academic year progresses, these odors multiply, challenging student's concentration levels.

THE CHALLENGE

A university in Louisiana currently houses its biology lab in a building that was constructed in the 1950s. In an attempt to modernize and enhance this older facility, the university made modifications to the HVAC system. However, even after making upgrades, many of the chemical smells that have plagued the building for years were still present.

The university's main goal is to provide the highest level of education possible in an environment conducive to productive learning. In the biology department, it is necessary to expose students to different chemicals and compounds in order to further their studies. The persistent problem, however, was that odors still flooded the rooms within the building, harming the student's ability to concentrate and their chances to excel. In order to provide students with hands-on experience within a fresh and pure environment, the university needed to explore new ways to ensure this building was a state-of-the-art laboratory, free from distracting and unpleasant odors.

THE SOLUTION

Plasma Air's Model PA600 was easily installed directly into the biology building's newly upgraded ductless VRF ceiling cassettes. The PA600 is compact and can fit in almost any mounting configuration. It is designed to operate without the use of an external power supply and includes models that accept input voltages of 12VDC, 24VAC, 120VAC and 230VAC.

THE RESULTS

By utilizing Plasma Air's ionization technology, the university benefited from a significant reduction of odors in the biology building. The PA600 cleared the air of unwanted particles and harmful toxins. Additionally, unlike competing products, the PA600 provided the university with an uncomplicated system that offered minimal to no maintenance.

As the chief engineer at the university explained, "It was highly important for us to deploy a solution that would allow our faculty to continue using experiential learning techniques while still maintaining an environment that's physically comfortable. Our students come first, and with the help of Plasma Air, we were able to maintain a space for experimentation where students can concentrate, learn and flourish."

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