



Plasma Air HVAC Technology Eliminates Odors in Fitness Facilities at Dorman High School

CASE STUDY

Dorman High School
Roebuck, SC

BACKGROUND

Locker rooms and workout facilities are widely recognized in schools across the country for their distinctive odors thanks to the sweat-soaked clothing, gym bags, and sports equipment that introduce an array of odor-causing bacteria into the atmosphere. High school locker rooms and strength and conditioning training facilities are utilized throughout the entire year as each season plays host to multiple sports teams. Over time, these odors become more concentrated, resulting in an environment that cannot be neutralized by typical commercial air fresheners or odor-reducers. In these environments, especially in the Southeast, the potential for airborne bacteria, virus, and even mold spores increases dramatically throughout locker rooms and athletic facilities, making it critical to establish a clean indoor air environment.

THE CHALLENGE

Dorman High School in Roebuck, SC, is one of the largest high schools in the state and home to more than 30 varsity and junior varsity sports teams. The school built a new 35,000-square-foot strength and conditioning facility designed to accommodate up to 75 student-athletes at a time. As a contemporary facility, much like those of colleges and universities, Mark Kirkland, the Director of Maintenance and Construction at Dorman High School, wanted to be sure his new facility had no odor issues.

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SOLUTION

Kirkland decided to test the Plasma Air HVAC technology on his worst offender; Dorman’s existing 6000-square-foot combination football/lacrosse/soccer locker room. A typical over-utilized and under-sized athletic high school facility. Kirkland chose the space because it had been experiencing a significant problem with offensive odors for several years.

Plasma Air model 51E tube-style ion generators were utilized in the locker room. This industrial-quality air purifier is designed for easy installation into existing air handling units or supply ductwork and works immediately to reduce harmful pollutants and offensive odors without the use of perfumes or other masking agents. As air passes over the ionization tubes, millions of ions travel through the duct system and into the exercise facility, attacking odorous and harmful pollutants at the molecular level. Ultimately, odor-causing volatile organic compounds (VOCs), bacteria and viruses are neutralized leaving behind a clean, healthy environment.

“We were preparing to spend a lot of money and time on the construction of our new, state of the art facility,” Kirkland described, “so it was important that we implement the same efficient and cost-effective solution used to completely alleviate the odor problems experienced in the existing facility. After installing the HVAC devices, I couldn’t be happier. All odors are completely eliminated, leaving behind fresh, clean and comfortable air.”



“Immediately after installing the Plasma Air HVAC system in our combination football/lacrosse/soccer locker room, I received a call from one of our coaches urging me to come to the school right away. He told me the change was so incredible that I needed to witness it for myself.”

- Mark Kirkland,
Director of Maintenance and Construction at Dorman High School

RESULTS

Dorman High School was able to eliminate virtually all offensive odors in its strength and conditioning and locker room areas. Facilities management personnel continue to receive positive responses from student athletes and their coaches. Because of this success, Dorman High School is currently in the process of deploying Plasma Air HVAC devices in four additional spaces in the district. Kirkland summed up the developments, “For our locker room, I truly felt as though we tried everything to reduce the odors, including the installation of expensive and complex commercial ventilation systems. However, nothing seemed to work. From day one, our new strength training room has been completely odor-free, and we experienced a significant change within the locker room. Our coaches simply couldn’t believe it.”