

FOR IMMEDIATE RELEASE

MINNEAPOLIS - Carson Solutions announces a patent pending integration of bi-polar ionization (BPI) within its displacement induction ventilation diffuser (QLCI).

Bi-Polar Ionization (BPI) generates negatively and positively charged ions that directly attack the DNA of bacteria and viruses. Bipolar ionization has been lab tested and verified to greatly reduce the presence of harmful viruses and bacteria.

ASHRAE's Epidemic Task Force for Schools and Universities offers ionization as an alternative filtration approach compared to traditional filters. Ionization avoids the associated increase of air-side pressure drop or decreased airflow associated with traditional filters.

The benefits of coupling BPI within the QLCI has several advantages including: 1) with the ion source mounted near the occupied space, this results in increased ion counts entering the room for maximized effectiveness against the bad particles. 2) With the QLCI supply air diffuser situated near floor level, the active ions have a direct path to attack the heavier droplets that have settled on room surfaces. 3) Due to the displacement ventilation process, the smaller, lighter, airborne particles are purged from the breathing area. 4) By combing these tested technologies, schools can effectively provide nearly three time the amount of outside air compared to traditional HVAC systems.

Carson Solutions purchased the patented QLCI from TROX USA in April 2018. The QLCI combines the unique operational characteristics of thermal displacement ventilation with efficient active chilled beam technology in a unitary modular design. Specifically developed for North American classroom applications, the QLCI terminal provides a comfortable and healthy learning environment with superior ventilation, improved air quality, and reduced noise with an energy-efficient and esthetically pleasing design. Recent independent studies of the QLCI by Purdue University has produced lab verification along with CFD simulations proving stratified air conditions in both cooling and heating modes. The aspect of year-round stratified air delivery with the QLCI provides designers the answer to the challenges of how to heat with an induction displacement-based system.

Chris Carson, President of Carson Solutions, we have been working closely with Purdue University to ensure our displacement induction ventilation equipment is delivering the healthiest air quality to our classrooms. Following the ASHRAE 62.1 guidelines and procedures, we obtained and validated our lab testing research with the combined CFD modeling in which has proven we are exceeding the air distribution effectiveness rate with our stratified air distribution system. We can now offer the same great displacement induction ventilation equipment coupled with BPI technology. The delivery method of the fresh sanitized air to the classroom occupants is specify unique to our design characteristics of the QLCI and the BPI mechanism.

ABOUT CARSON SOLUTIONS

Carson Solutions designs and manufactures HVAC equipment for occupied environments. They focus on innovative products that exceed industry standards to assist in providing the best environments in which we work and live. To learn more about Carson Solutions and the QLCI, visit carsonsolutions.com.