HOW DOES THE iAIRE PATENTED TECHNOLOGY WORK?

iAIRE combines ionization devices - installed where supply air is brought in by the roof top unit (RTU) to continuously treat and reduce contaminates - along with a CO2 & VOC sensor(s) installed to continuously monitor the indoor air quality (IAQ) in the building space.

Outside air (OA) is minimized and brought in only when the sensor(s) show a demand in the space that justifies the need for additional outside air. If a sensor(s) fails, the full load design OA is brought into the building space.

When used in conjunction with an economizer, the user will normally see about a 2/3 reduction of the outside air being brought into the building while maintaining a healthy IAQ that is constantly monitored by the sensors. This reduction gives the building owner a large ongoing utility savings that can pay off the initial investment of equipment in 3 years or less.

If the system is utilized during new construction, the size of the HVAC equipment can potentially be reduced for further cost savings. With the minimization of outside air, the design conditions change for the HVAC equipment resulting in less total load for the system. In many cases, the smaller equipment package is less capital cost than the original equipment, plus the ongoing utility savings to the owner still exists.

When used in conjunction with an ERV, the user will normally see about a 90% reduction in the outside air being seen by the HVAC unit while maintaining a healthy IAQ that is constantly monitored by the sensors. In this system, the size of the ERV media can be reduced by approximately 2/3, which can lead to a large reduction in the initial cost.