Project Showcase:

University Of Florida

Stephen O' Connell Center Gainesville, Florida

CAVH HVAC
CUSTOM AIR VENTILATION & HEATING
"QUALITY PRODUCTS FOR OUR INDUSTRY"

Project:
University of Florida
Stephen O'Connell Center

Mechanical Engineer:
TLC Engineering for
Architecture- Orlando, FL

General Contractor:
Brasfield and Gorrie

Contractor:
Nash Plumbing & Mechanical
LLC.

Manufacturer:
Trion IAQ

History of Project:

The **Stephen C. O'Connell Center**, also known as the **O'Dome**, is a multi-purpose arena located on the University of Florida campus in Gainesville, Florida. The facility is named for the sixth president of the university, Stephen C. O'Connell, who served from 1967 to 1973. The entire facility was known as the O'Connell Center from 1980 until 2016. The building underwent a major $64.5 million renovation / reconstruction during that year, and Exactech, a Gainesville medical firm, signed a naming rights deal for the main arena, which was officially renamed the **Exactech Arena at the Stephen C. O'Connell Center**

Required HVAC Solution:

The removal of Kitchen exhaust contaminants (Grease, Oil, Creosote, odors, etc.) produced from cooking that potentially affects the white roof finish & neighboring buildings through build up of grease and dispersion of nuisance odors while satisfying LEED requirements.

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GREASE VIPER By TRION

Specified HVAC Solution:

Due to the high level of grease and oil particulate production from the commercial kitchen cooking stations the idea of employing an Electrostatic Precipitator was born. The technology behind the Electrostatic Precipitator insures a low power consumption (120/1) at a very high efficiency of particulate removal. ***So how does it work?***

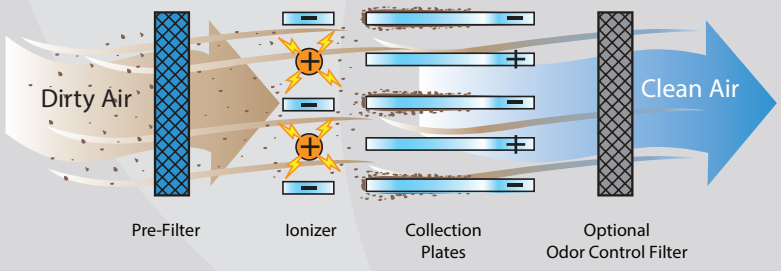
Principals of Operation

The TRION electronic air cleaner is technically known as an Electrostatic Precipitator (ESP). In this type of equipment, all airborne particles, even of microscopic size, are electrically charged (positively) as they pass through a high voltage ionizer. These charged particles are then attracted to and adhere to a series of parallel collecting plates, which form the negative elements of an electrostatic field. The ionizer consists of charged stainless steel spiked blades spaced between grounded electrodes. The collecting section consists of parallel plates arranged so that each alternate plate is charged while the intermediate plates are electrically grounded.

Periodically, depending on the type and concentration of contamination in the air, the contaminant is washed from the plates by the integrally constructed water wash system. Three major functional components comprise the air cleaner:

(1) Ionizing-collecting cells to ionize and collect airborne particulate matter
(2) Power supply(ies) to provide high voltage direct current to the ionizing-collecting cells
(3) Control operated wash system to automatically wash away the collected contaminant.

Normally, systems are designed for collection efficiencies in the range of 90% to 95% or better DOP (0.3 microns). Collecting a contaminant at these efficiencies, especially when there are high concentrations, can result in large accumulations in a relatively short period. The Grease Viper auto wash system ensures efficient operation without daily or manual cleaning. However, maintenance should encompass two areas: the operation of the equipment for efficient collection and the systematic removal of the collected contaminant.



Project Summary:

The project was furnished with two LEED project certified Electrostatic Precipitators that provide a 96-98% DOP Efficiency. Upon start up, end user was impressed with operations and installation.

Manufacturer's Representative:
CAVH

Contact CAVH
Phone:(407) 894-2096
Email: info@cavhcorp.com
Mailing Address: 6965 38th St. N. Pinellas Park, FL 33781