

A winning solution!

The Institute of Culinary Education challenged foodservice consultant Jacobs | Doland | Beer along with TPG Architects and AMA Consulting Engineers to design their new culinary teaching facility and Gaylord Industries provided a winning solution



It all started in 2010 for Robert Doland FCSI. With an anticipated 2015 opening, Doland had a challenging project on his desk from the Institute of Culinary Education. The brief: design a 74,000 sq ft facility over a single expansive floor located in lower Manhattan. The reason: to celebrate the Institute's 40th anniversary.

"One of the main challenges of this complex project was also its most enduring quality, the location," says Doland, "Initially designed as office space, it was not well suited for the extreme mechanical requirements of a huge foodservice facility. Space, utilities, gas, grease traps and exhaust were especially challenging for this project."

A SMARTER KITCHEN IS IN THE AIR

The Institute of Culinary Education's facility includes 41 ELX hoods controlled by a custom-programmed AirVantage system to manage the demands of 12 state-of-the-art teaching kitchens providing airflow when and where it's needed. AirVantage's unique damper optimization enhances airflow, minimizes exhaust volumes and maintains capture

and containment while providing optimal energy savings. Operating on one set of exhaust ductwork, the fully-conditioned exhaust air is moved by two fans mounted inside two pollution control units sharing a common plenum that discharge out of the side of the building to maintain local air quality. In addition, AirVantage reduced capital costs by allowing the use of smaller HVAC equipment and overall operational costs due to the managed airflow.

A PRODUCTIVE TEACHING AND LEARNING ENVIRONMENT

Gaylord Industries' ELX hood has the lowest air volume in the industry as tested to ASTM 1704 requirements by Fisher Nickel, Inc. The nearly 25% reduction in hood noise over industry standards creates a quieter, more comfortable and productive teaching kitchen environment. "When I was working on ICE's kitchen designs," said Richard Simpson, the school's vice president of Education, "creating an optimized learning environment was a primary concern and ambient noise was a big factor; all our kitchen refrigerators use remote compressors to minimize noise and

I wanted to make sure that the hoods were also as quiet as possible. The ELX hoods have helped us to meet that goal."

EFFICIENT DESIGN

"Most students and instructors don't think about kitchen hoods because they hide in plain sight," said Simpson, "but their energy consumption is significant. Reducing our energy footprint was an important part of our design goals and the ELX & AirVantage system has been an integral part of achieving that goal. Monitoring has confirmed a 74.6% reduction on supply and exhaust fan energy consumptions and a net 48% reduction on the total exhaust rate designed at 50,030 CFM producing an estimated \$40,000 annually in fan energy savings, not including space heating and cooling costs." ■



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