

EQUIPMENT & TECHNOLOGY

Where's the hood? Ventilated ceiling gives kitchens a new look

Recycling, energy efficiency, mass transit and government bureaucracy: just a few things that Europe does far better than North America. Throw in technological advancement in the restaurant industry, too, such as handheld POS and the ventilated kitchen ceiling, which eliminates the traditional hooded ventilation system.

Finally, the ventilated ceiling technology has arrived in the United States—the Vent Master Ventilated Ceiling System will debut in the restaurant kitchen within the new Westin Hotel in Minneapolis, set to open in March. Strategic Equipment is the subcontractor on the project, and is working with Kevin Cromwell of Cromwell & Associates, a Massachusetts-based kitchen equipment consulting firm. Cromwell has consulted on several Starwood properties, of which the Westin belongs.

"At this particular place, it's a good fit," Cromwell said, "It's an exposed kitchen, so nobody wanted to see the stainless steel (ventilation) box. ...sightlines in the

kitchen were critical."

And therein lies one selling point of the ventilated ceiling: sightlines. "If this was your standard everyday American food restaurant, this is not for them," Cromwell said. "It just doesn't make sense to put this in a non-visible area."

Ontario, Canada-based Vent Master, a kitchen ventilation company, developed and installed several ceilings in European markets. The company recently completed the arduous task of bringing the technology across the ocean, with the first North American installation at Humber College in Toronto.

"The way the ventilated ceiling works is similar to an exhaust hood system, but all of the apparatus is hidden above the ceiling line," said Dan O'Brien, Vent Master's director of sales. Air is pulled through small openings in the ceiling—and therefore at a higher velocity than a hooded system. Make-up air is brought back into the kitchen at positions "strategically located to help the exhaust performance, and we also



No hoods: The Vent Master ventilated ceiling at Humber College, a cooking school based in Toronto, Canada. Air is pulled through small openings in the ceiling, and vapors are trapped in dishwasher-safe cartridges. The hanging rods are a fire safety feature. The first U.S. model is being installed at the new Westin Hotel in Minneapolis, set to open in March.

have lighting panels built in, so the ceiling does serve a variety of functions," O'Brien added. Vapors are captured in removable cartridges, which can be removed and washed in a dishwasher or pot sink.

Sounds simple enough. But there are limitations, and for that reason, ceilings are custom-built for each location. At the Westin's restaurant, the ceiling is over one area in the kitchen—an "island cooking suite," O'Brien said. "Where we would draw the line is, for example, a university foodservice facility with a 48-inch-long char broiler that was literally a hamburger factory—something like that is going to generate too much smoke for the system to capture and contain."

That is not to say the ceiling can't be used with a char broiler, but kitchen design, obviously, is key. "Where the ventilated ceiling is going to end, you don't want to have a char broiler," Cromwell said. "You have to use common sense and think about the design and think about where the air's going and how it's going to work."

Cromwell, who was a chef for two decades before becoming a consultant, stressed that it takes a total design-team effort to use the technology appropriately. "You just have to make sure that you design the kitchen first from flow and menu, and second, will the (ventilated ceiling) be an application. I would not recommend designing a kitchen around the (ceiling)—that's not the priority."

Design considerations include ceiling height: The ceiling is hung at a range of seven feet, six inches to 11 feet, six inches, and a minimum of 18 inches above that is required for the ductwork and trapping mechanisms, O'Brien said.

"If you've got only nine feet of clearance,

this is not the solution for you," Cromwell said.

Because everything is tucked into the ceiling, the system operates much quieter than a traditional hooded ventilation system—another factor that makes it ideal for open kitchens and educational environments, Cromwell said.

The technology is great "where sightlines are important to the operator," he said. "I think that in culinary institutions, it has huge potential."

Vent Master is aiming to those markets, O'Brien said. "The two major applications are display cooking, and culinary schools, although we have had interest from the correctional industry, because getting the hood out of the space helps to enhance security and supervision, and the low operating noise is a benefit in the correctional facility."

With the North American market finally opening up, and having jumped through the required inspection hoops to build in the Westin, O'Brien and Cromwell both expect the technology to take off. But, like hand-held POS technology, why does North America seem slow to move on technological advances in the industry?

"I don't know, maybe they're a little more creative over there (in Europe)," O'Brien said. "But I think part of it, with our type of product, there aren't nearly as many restrictions (over there) in terms of what the code and authorities will or won't accept. They've got more freedom to try new things that we can't even think about over here without a lot of work."

Maybe North America is catching up on bureaucracy. **FSN**

—Mike Mitchelson