

two thousand and fourteen

2014 Case Histories



Hospital's food service expansion adds value to patient care

Project team overcomes grease duct slope challenges

There's a common mental image that's evoked when we hear the words "hospital food." But don't blame the resident chef. Ready-to-serve patient trays to be served at virtually the same time throughout the hospital requires mass production and reheating. Food choices also have to be fairly bland to accommodate the vast variety of patient conditions.

One of the core principles at Massachusetts General Hospital is "adding value to care." An initiative that fit into this value-added philosophy was a redesign of its patient food service delivery system. The goal was to streamline food preparation so that every meal is freshly cooked-to-order and delivered to the patient without reheating. This required an extensive kitchen modification.

The kitchen for the 950-bed hospital is located in the basement level of the 25-story inpatient tower. The project design team was interested in utilizing a UL-1978 listed grease-duct system with a UL-2221 classification. The UL-1978 listing provides the facility owner assurance that the product is specifically designed and tested for grease exhaust applications. Additionally, the UL-2221 classification provides the product with a zero-clearance to combustibles as well as a two-hour fire rating, eliminating the need for the construction of a two-hour rated chase.



SlimVent's flat oval design makes it ideal for grease duct installations where round products do not meet overhead clearances, providing up to 28% space savings.

Early in the design process, it became clear the lack of ceiling headroom was going to be a challenge. The project engineer, Thompson Consultants Inc. (TCI) contacted Bow, N.H.-based Atlantic Air Products Mfg., to inquire about Schebler Chimney Systems' FyreGuard™ family of grease duct products. Schebler and Atlantic Air were able to provide TCI with design assistance on the system layout and sizing. The design team chose the Schebler SlimVent™ flat oval grease duct system as a solution to the lack of available headroom.

Adding to the challenge was the fact that International Mechanical Code requires a 1 in. slope per foot of horizontal distance in grease duct systems with more than 75 ft. of horizontal run.

"Not only could we not pitch the system one inch per foot, there wasn't enough ceiling space to pitch at all. If the hospital were to follow

the IMC guidelines, the material would need to pitch 120 feet on the kitchen level. Obviously that wasn't possible," recalls **Skip Creamer**, president of Atlantic Air Products. The project team believed that they could receive approval on the MGH project using Schebler's SlimVent™ product with no slope.

"We thought we could get approval from the Boston Fire Department's Inspectional Services

Division for the system by submitting a waiver application to the city," says **Marc Fishman**, senior project manager with construction management company Walsh Brothers Inc. "However, systems that don't comply with International Building Code must go before the State Board of Appeals."

Schebler collaborated with the design team and took part in the presentation, informing the board about SlimVent's extensive UL testing and the company's experience with other systems with slope challenges. The board unanimously approved the Schebler SlimVent system for use on the MGH project.

This time-consuming appeal process will be well worth it because the hospital will have a system with UL listed components from the capture hoods in the basement to the fan on the roof 25 stories above. And importantly, its patients will be comforted by a freshly cooked meal that reminds them of home.