Recipe for Success: How Pre-fabricated Grease Duct Keeps Restaurant Construction on Fast Track

The burgers may be basic--pure old school. The grease duct is not.

Like any cooked meat, the hamburgers, chicken breasts and hot dogs served up at the Basic Burger located at Pentagon Row in Arlington, Virginia, generate a lot of grease-laden vapors which must be swiftly and safely exhausted to the outside. That makes grease duct one of the most vital mechanical components in a commercial kitchen. It must be thoughtfully chosen and applied because it not only impacts kitchen operation and efficiency but also construction costs and logistics, long-term maintenance and fire safety.

At Basic Burger, the decision to use Security Chimneys’ Zero Clearance grease duct has been met with rave reviews.

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Eric Willie of Sam DeSanto Co., Security Chimneys’ representative in Virginia, introduced the Basic Burger construction team to the Zero Clearance product. Both Greg Drunagel, mechanical contractor and owner of Pipe Dreams Charters, LLC, and Jay Morgan, senior project manager of Robert Whalen Company, the general contracting firm, were familiar with pre-fabricated grease duct systems as an alternative to field-welded systems, but neither had used Security Chimneys’ product prior to the Basic Burger project.

“I showed them the product and basically said, ‘Here is a product you don’t have to wrap to get your fire rating,” said Willie.

Security Chimneys’ Zero Clearance grease duct is tested per UL-1978 and UL-2221 standards and therefore does not require additional wrap to achieve its 2-hour fire rating. The double-wall stainless steel round duct ships pre-insulated with 3-inches of AES wool insulation. Self-centering flue extension significantly simplifies and accelerates the installation process. A unique self-centering flue design, another exclusive Security Chimneys’ innovation, also helps speed up the installation process. The systems ship complete with all the components that are required to assemble the exhaust duct, connect it to the fan hood and anchor it to walls, roof, and floors.
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Hold the Welding

Selecting factory-built grease duct helps minimize or even eliminate jobsite welding, along with the associated labor costs and safety precautions. Installation is faster, and the inspection process is streamlined.

“On-site welding costs are typically higher than standard installation labor costs. Plus, when you install field-welded systems, you have to leak test and inspect the duct, then insulate it, and then have it inspected again,” explained Drunagel.

Over 130 feet of 22-inch round duct was installed at the Basic Burger location. Using a crew of just five or six workers, Drunagel was able to complete two 50-feet vertical duct runs using 3-feet sections of pre-fabricated duct in just one day.

“We estimate that using the factory-built grease saved us approximately 30% in labor costs,” said Morgan.

Order Up!

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According to Morgan, timely availability of the product from the manufacturer helped keep the project on a fast track.

“We found we could get this product much quicker than other [pre-fabricated] products we were looking at. Also, the back-up support we received from Eric Willie was great. He was there for the installation, giving us pointers throughout the process. It went really well.”

Although this was the first time the contractor had ever installed the product, only one leak was detected during post-installation testing. The leak was at the end-cap, a minor installation error which was quickly resolved.

“This project is a testament to the fast learning curve that is associated with Security Chimney’s Zero Clearance product. Installers quickly see the benefits of factory-built duct over field-welded systems. If they are already familiar with factory-built systems, it doesn’t take them long to realize Security Chimneys includes some unique features that truly facilitate the installation and ensure a successful project,” said Willie.

For more information and literature on grease duct systems, please visit:

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