New Life for an Old School

Keeping Tenants Safe in Massachusetts with System 1738® Flue Gas Venting

Since the publication of this case study, the Commonwealth of Massachusetts has updated their code language related to plastic venting of gas-fired appliances. As of May 1st, 2021, the code regulation requires plastic venting products to be listed and board-approved.

System 1738® FLUE GAS VENTING

System 1738® Flue Gas Venting (FGV) System Includes:

- UL 1738 certified vent system for Categories II and IV gas burning appliances
- Engineered PVC rated for flue gas temperatures up to 149°F (65°C)
- Sizes 2", 3", and 4"
- Pipe, fittings, cement, terminations and venting accessories
- Availability of cutting and bevelling tools to ensure proper joint installation
- Terminations and accessories that can be painted to match building exteriors
- Installation training and literature support
- National distribution

Photo Credit: carterschoolapartments.com

For over 30 years, the Carter School stood abandoned and decaying in the heart of Leominster, Massachusetts. Built as a high school in 1904, it was converted to a junior high in 1964 and was finally closed in 1984. In 2016, a developer, NewVue Communities and Hutter Construction Corporation partnered with the city to bring the building back to life and dedicate its use for affordable housing. Thirty-nine units were created with 1, 2 and 3 bedrooms.

Tenants in the refurbished building will enjoy a secured building, free wifi, central air conditioning and heating, and easy access to the park and playground next door. Its central location is close to banks, restaurants, and schools. NewVue is also working toward having the building LEED certified and added to the National Register.

The Commonwealth of Massachusetts' Board of State Examiners of Plumbers and Gas Fitters has recently approved new code language banning plumbing pipes designed for the transportation of liquids from being used as flue gas vents, this is expected to become law within a few months time. Because of the expected code change, Paul Castello from IBC Technologies Inc. suggested the use of IPEX System 1738® FGV. Contractor, Michael Moran from Charles M. Moran Plumbing and Heating agreed that this was the right material for the application.

Each apartment has its own combi-boiler to provide both heat and hot water. For safety, these systems need to be vented outdoors. One of the challenges of installing the venting at Carter School is the size of the building-some flues are 60 feet long.

Many installers use Solid Wall DWV Schedule 40 PVC pipe made to ASTM D2665 or Foam Core DWV pipe made to F891 and PVC DWV fittings in FGV applications to save money. These plumbing materials were never designed for this use or to withstand the flue gas venting conditions to which they are exposed. Many manufacturers of these plumbing materials make this very clear in their specifications. Using the incorrect materials leaves the system vulnerable to the release of carbon monoxide, a silent, deadly gas.

Centers for Disease Control and Prevention state:

"Each year, more than 400 Americans die from unintentional carbon monoxide poisoning not linked to fires, more than 20,000 visit the emergency room, and more than 4,000 are hospitalized."*

Gaetano Altomare, Category Manager - Plumbing at IPEX adds, "When exposed to repeated changes in temperature of a flue gas venting application, plumbing PVC DWV material will weaken over the life of the vent. System 1738 pipe and fittings are tested to withstand the abuse of weather and for longevity to ensure that they maintain more than minimum values for safety and mechanical viability over many years."

System 1738 FGV offers a full range of pipe, fittings and termination components that are manufactured from an engineered PVC compound, rated for a maximum flue gas temperature of 149°F. Architects and designers also appreciate the feature that terminations and accessories can be painted to match building exteriors. Homeowners and installers value the safety and peace of mind associated with using a piping system designed for Flue Gas Venting. All system components are fully certified to the rigorous requirements of UL 1738 venting standard for Categories II and IV gas-burning appliances. The NFPA 54-18 (National Fire Protection Association) National Fuel Gas Code and IFGC-18 (International Fuel Gas Code) now recognizes the UL 1738 venting standard as an option for venting Categories II and IV gas fired appliances.

Site Foreman, Peter Moran from Charles M. Moran Plumbing and Heating adds,

"System 1738 is easy to work with and our plumbing inspector was happy to see us using a UL 1738 certified flue gas venting system."

System 1738® Flue Gas Venting meets the safety standard, shouldn't the product that is installed in your community meet the standard?

It's time for a UL 1738 certified flue gas venting system to be installed that safeguards against the dangers of carbon monoxide.

To learn more, visit system1738.com.

*https://www.cdc.gov/co/faqs.htm

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System 1738® FLUE GAS VENTING

It's the *right* thing to do.