

System 636[®] FLUE GAS VENTING



Flue Gas Venting — Innovation and Problem-Solving in Downtown Waterloo

The new Princess Lane Lofts is a 7-storey, mixed-use, residential building in downtown Waterloo. A striking building set amid vintage storefronts, the Princess Lane Lofts features 45 residential units, each complete with its own gas water heater and gas furnace. Each of these individual units requires flue gas ventilation (FGV) that meets the ULC S636 standard.

IPEX System 636[®] PVC pipe is specifically designed to meet the required safety standards for FGV, and normally, it would have been the first choice for this site. However, the building is one metre too tall to permit PVC as per the Ontario Building Code for use of combustible piping in a High Building.

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First Problem Solved

Although System 636 CPVC represented a cost savings versus stainless steel, it did still have an unforeseen material cost premium versus the more commonly used System 636 PVC. IPEX was consulted and came up with some further cost savings on the project. Although the exhaust vent needed to be System 636 CPVC to meet the ULC S636 standard for ventilation pipe, the combustion air intake was another story. It needed to meet the Flame and Smoke listings — but didn't need to meet the ventilation pipe regulations. Thus, a cost-saving solution for 8,000 feet of combustion air intake piping was IPEX System XFR®.

System XFR is made of an advanced material that meets all High Building Flame Spread and Smoke Development listings. It is also less expensive than using System 636 CPVC for fresh air intake. Permission was obtained from the appliance manufacturer for the fresh air intake modification.



Second Problem Solved

Because of the numerous individual furnaces and water heaters, the structure required many exhaust and intake pipes penetrating the outside walls. Concern was expressed by designers about the finished look of the structure with multiple sets of double pipes climbing up the exterior of the building. To help address this concern, IPEX recommended System 636 CPVC Concentric Vent Kits. The air intake and exhaust pipes are connected to the vent kit on the interior of the building so that only one penetration is required per appliance. On the exterior is the pleasing appearance of one cone-shaped structure per appliance that includes both exhaust and air intake. The CPVC Vent Kits are normally supplied gray in colour but being vinyl allowed the Concentric Vent Kits to be easily painted to blend with the exterior brick work.

Flue gas venting is a life safety system that removes lethal combustion gases generated by heating appliances from homes and businesses. System 636 Flue Gas Venting provides a complete product that gets the job done on-time and to the finished quality and safety standards that customers need and expect.

Avoid uncertainty and go with the proven system solution – System 636® by IPEX.