

Firestopping Needs in a Commercial Building

By James Taite

Firestop is a product that, when installed properly, impedes the passage of fire, smoke, and toxic gases from one side of a fire-rated wall or floor assembly to another. Typical firestop products include sealants, sprays, mechanical devices (firestop collar), foam blocks, or pillows. These products are installed primarily in two applications: 1) around penetrations that are made in fire-resistant construction for the passage of pipes, cables, or HVAC systems, and 2) where two assemblies meet, forming an expansion joint such as the top of a wall, curtainwall (edge of slab), or floor-to-floor joints.

Who is the typical firestop installer?

Typically, installation of firestop materials in an existing structure is left up to the contractors that make the holes in the fire-rated construction, or the building maintenance staff that is responsible for building upkeep. However, with shrinking budgets, greater responsibilities for building staff, and the difficulty of keeping up with the subcontractors for a building, the use of professional firestop contractors (PFCs) has started to become more attractive.

Why? In many cases, a competent PFC can come in and get a building up to code in a fraction of the time while properly documenting all work at a reasonable cost. Reputable PFCs have well-trained and efficient installers to help ensure that firestop installations are done correctly the first time – and they're more likely to understand which applications need to be protected and which do not. Many professional installers will perform a building survey at no cost, which will specify what needs to be upgraded.

In ensuring a quality firestop installation, how can a building owner "qualify" the best professional firestop installer?

When soliciting the help of a professional

firestop installer, it is critical to determine the company's areas of expertise, training, work completed in the past, and which accreditations the company has. Many installers in the market today actively participate in manufacturer-sponsored programs of accreditation, which have been developed to provide guidelines and training to promote correct installation of firestop systems. A building professional should also ask the prospective installer to provide samples of the following: company installer-training guidelines, installer-training checklists, training logs, and jobsite audits. This type of documented program is an indication of a level of professionalism and commitment to proper firestop installation.

What is a building owner's responsibility with respect to maintenance, inspection, and documentation of a facility's in-place firestopping "system"?

A building owner's responsibility is to comply with all applicable laws and regulations relating to the property. One of these is the adopted and enforced fire code within a specific community. Fire codes govern the construction, protection, and occupancy details that affect the fire safety of buildings throughout their lifespan. Numerous different fire codes have been adopted throughout the United States – the vast majority of which are similar and based on one of the model codes available today or in the past. One requirement in all of these model codes is that fire-safety features incorporated into a building at the time of its construction must be maintained throughout a building's life. Therefore, this would require any fire resistance-rated construction to be maintained.

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Firestop Resources

The following websites offer insight into firestop technologies, processes, installation, and technical advice:

- The *Intl. FireStop Council (IFC)*, Westford, MA, is a not-for-profit association of manufacturers, distributors, and installers of passive fire-protection materials and systems in North America. IFC's mission is to promote the technology of fire and smoke containment in modern building construction through research, education, and development of safety standards and code provisions. Learn more at (www.firestop.org).
- The *Firestop Contractors Intl. Association (FCIA®)*, Wheaton, IL, strives for member organizations to be recognized throughout the construction industry as preferred quality contractors of life-safety firestop systems. Technical information, member lists, and more are available at (www.fcia.org).

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