



CITY OF CHARLOTTESVILLE

"A world Class City"

Department of Neighborhood Development Services
City Hall - P.O. Box 911 - Charlottesville, Virginia 22902

General Plumbing Fire Stopping Requirements

Our advice is to contact the building inspector or consult with the designer, general contractor or superintendent for fire rated assembly locations specific to your project.

Every time a fire rated wall or floor/ceiling assembly is penetrated by pipes, access doors, ducts, electrical cables, etc., the penetrations have to be protected by fire rated fire stop systems in order to maintain the assembly's intended fire rating.

Fire-rated walls and floor/ceiling assemblies are built to separate building areas with higher hazards from those with lower hazards, to separate people from hazards and storage areas, to divide a building into smaller areas to slow the spread of fire, to create a separation between dwelling units, and to help confine fire to the area of origin. As a general rule, there will be a fire rated wall or floor and ceiling assembly between dwelling units and between different building occupancies, such as: between a restaurant and an attorney's office; or a public garage and the residential area above it, etc.

If the penetrating pipe is a **noncombustible material**, such as cast iron; steel; etc., the annular space around the pipe needs to be filled with intumescent fire caulking, and a fire collar is not required. Please see figure 1.

If the penetrating pipe is PVC, CPVC, ABS or any other **combustible material** and is **2" or smaller** in diameter, the annular space around the pipe needs to be filled with intumescent fire caulking, and a fire collar is not required. Please see figure 1.

If the penetrating pipe is a **combustible material and is larger than 2"** in diameter, a fire collar, sleeve assembly or an ASTM E 814 OR UL 1479 listed assembly is required. Please see figures 2 and 3.

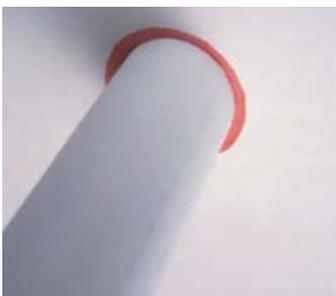


Figure 1
(Intumescent fire caulking)



Figure 2
(Fire Collar)



Figure 3
(Fire Collar)



Figure 4
(Fire rated access door)

Caution:

1. Required access doors, such as those for shut off valves, located in fire rated walls or assemblies, are considered membrane penetrations, therefore, they have to be fire rated doors. Please see figure 4.
2. Washing machine boxes and ice maker boxes located in fire rated walls, are considered membrane penetrations, therefore, they have to be fire rated boxes.

Heads Up: PVC, CPVC, ABS or any other combustible materials are not permitted to be exposed in return air plenums.