

## Single Penetrations

Vertical (wall)

Test Standards: ASTM E-814, UL 1479,

ULC S115-M11: open and closed systems

Test Furnace Internal Positive Pressure Differential – 50 Pa (0.20 in. of water) Minimum

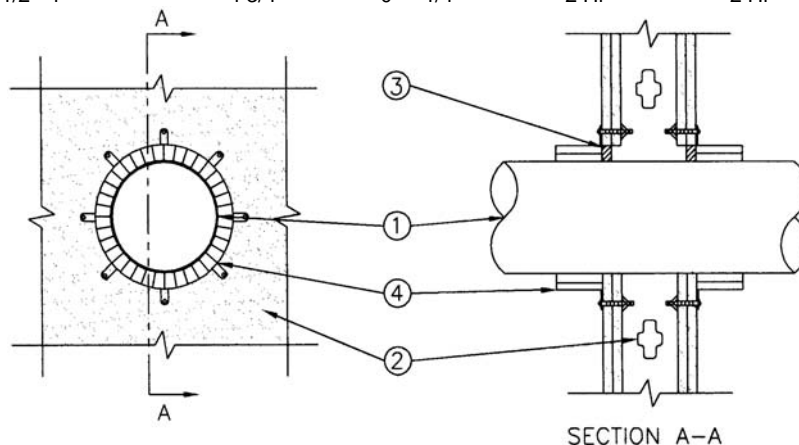
CSI Code: 07 84 13 Penetration Firestopping

### 1 Hour Fire Rated Wall Systems

Penetrating Material & Size	Max Hole Size	Annular Space	Fire "F" Rating	Fire/Hose "FH" Rating	Temp Rating "FTH" Rating
PVC or ccPVC Plastic Pipe 1-1/2" – 4"	5"	0" – 1/2"	1 Hr	1 Hr	55 min
XFR PVC (IPEX) Pipe 1-1/2" – 4"	5"	0" – 1/2"	1 Hr	1 Hr	50 min
CPVC Plastic Pipe 1-1/2" – 4"	5"	0" – 1/2"	1 Hr	1 Hr	55 min
ABS Plastic Pipe 1-1/2" - 4"	4 3/4"	0" – 1/4"	1 Hr	1 Hr	45 min
ccABS Plastic Pipe 1-1/2- 4"	4 3/4"	0" – 1/4"	1 Hr	1 Hr	45 min

### 2 Hour Fire Rated Wall Systems

Penetrating Material & Size	Max Hole Size	Annular Space	Fire "F" Rating	Fire/Hose "FH" Rating	Temp Rating "FTH" Rating
PVC or ccPVC Plastic Pipe 1-1/2" – 4"	5"	0" – 1/2"	2 Hr	2 Hr	116 min
XFR PVC (IPEX) Pipe 1-1/2" – 4"	5"	0" – 1/2"	2 Hr	2 Hr	120 min
CPVC Plastic Pipe 1-1/2" – 4"	5"	0" – 1/2"	2 Hr	2 Hr	116 min
ABS Plastic Pipe 1-1/2" - 4"	4 3/4"	0" – 1/4"	2 Hr	2 Hr	112 min
ccABS Plastic Pipe 1-1/2- 4"	4 3/4"	0" – 1/4"	2 Hr	2 Hr	112 min



### System Design Instructions

- 1. Penetrating Item:** Centered or offset in hole, see table above. Single penetrations only, maximum hole size not to exceed table above. Ratings achieved will not be greater than that of the wall assembly.
- 2. Wall Fire Separations:**
  - a) 1 or 2 hour CAN/ULC S101 or ASTM E119 equivalent metal or wood framed fire rated gypsum wall board (GWB) wall fire separations framed with 3 1/2" (88mm) studs or;
  - b) Cast in place normal or light density concrete wall having a min cross section thickness of 4 1/2" (112mm) or;
  - c) Hollow or concrete filled unit masonry (concrete block) wall assemblies laid up with mortar having a minimum cross section thickness of 8" (200mm).
- 3. Firestop System, Component 1:** PFP Partners – Firestop 3600EX\* or 4800DW\* installed at a minimum thickness of 5/8" (18mm) within the annulus on both surfaces of wall assembly. On 0 – 1/4" (6mm) annular spaces, a 1/2" (13mm) diameter fillet bead must be placed around the penetrating item.
- 4. Firestop System, Component 2:** PFP Partners - Plastic Pipe Collar (PPC) specifically sized for diameter of pipe. PPC secured to gypsum wall assemblies using 1-1/2" toggle bolts over fender washers, at stud locations use 1-1/2" drywall screws to fasten collar directly to studs. PPC secured to concrete wall assemblies using 1/4" diameter by 1-1/4" long steel masonry anchors over fender washers.

\*WH Labeled Component