

3M CANADA CO. – London, On Canada

DESIGN NO. 3M/PV 120-04

October 02, 2006

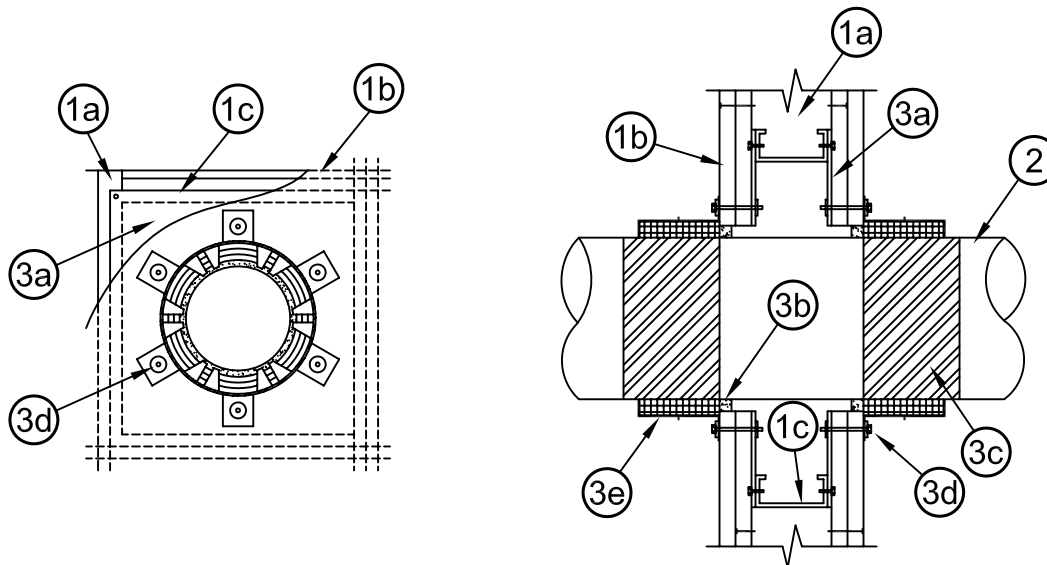
HORIZONTAL (FLOOR)

RATINGS – See Below

ANNULAR SPACE – 1/4"

TEST PRESSURE DIFFERENTIAL – 50 Pa (0.20 in. of water)

| Penetrant | Pipe ID | ULC-S115-95 CAN4-S115-M | | | |
|------------|---------|----------------------------|----------|----------|----------|
| | | F | FH | FT | FTH |
| PVC | 6" | 1-3/4 Hr | 1-3/4 Hr | 1-3/4 Hr | 1-3/4 Hr |
| System XFR | 6" | 1-3/4 Hr | 1-3/4 Hr | 1-3/4 Hr | 1-3/4 Hr |



- Wall Assembly:** Code conforming 2 HR fire-rated wall, metal or wood stud (Item 1a) framed gypsum wallboard (Item 1b), wall assembly. Opening is to be framed to create a nominal 16" square compar™ ent with metal or wood studs (Item 1c). Maximum 7" diameter opening.
- Penetrant:** (See also table of ratings) Nominal 6" diameter, Sch. 40, PVC and System XFR pipes used for DWV or Closed (Process and Supply) applications.
- Firestop System Components:**
 - Galvanized Steel Backing:** Minimum 28 gauge galvanized steel sheet, secured to studs and framed compar™ ent with self tapping screws. Sheet may be comprised of 2 sections, with a 7" diameter opening for the pipe (Item 2) forming an overlap or butt seam. A 2" wide cover strip is applied over butted seams and secured with self tapping screws according to the manufacturers instructions.
 - Sealant:** * 3M™ Fire Barrier CP-25WB+ Caulk, *3M™ Fire Barrier IC 15WB+ sealant, or *3M™ FireDam 150+ Caulk, applied within the annular space around the pipe, to a 1/4" thickness flush with the wall surface on both sides.
 - Aluminum Foil Tape:** Pipe is to be covered with aluminum foil tape from the wall interface for a 4" length.
 - * 3M™ Interam™ Ultra PPD-6 wrapped tightly around the pipe, latched and secured with the steel hose clamp, provided. The mounting tabs are fastened with 1/4" diameter hollow dry wall anchors or toggle bolts in conjunction with 1- 1/4" diameter steel fender washers (Item 3d).

Note: Metric conversion factor, inches x 25.4 = mm.

*Component bearing the Warnock Hersey Mark.

This material was extracted and drawn by 3M Fire Protection Products from the 2006 Warnock Hersey Directory of Listed Products

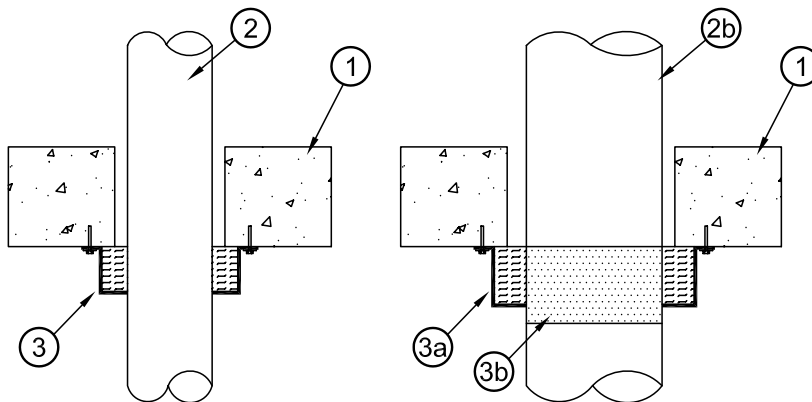
3M CANADA CO. – London, On Canada

DESIGN NO. 3M/PHV 120-03

July 26, 2006

HORIZONTAL OR VERTICAL (FLOOR OR WALL), RATINGS – SEE BELOW, ANNULAR SPACE – 1/4" MAXIMUM
TEST PRESSURE DIFFERENTIAL – 50 Pa (0.20" OF WATER)

| Penetrant | Pipe Size | CAN/ULC-S115 CAN4-S115 F, FH, FT, FTH | ASTM-E814 F, T |
|-----------------|-------------|---|-------------------|
| PVC | 1-1/2" - 6" | 2 Hr | 2 Hr |
| System XFR | 1-1/2" - 6" | 2 Hr | 2 Hr |
| CPVC | 1-1/2" - 4" | 2 Hr | 2 Hr |
| ccABS | 1-1/2" - 4" | 2 Hr | 2 Hr |
| ABS | 1-1/2" - 4" | 2 Hr | 2 Hr |
| FRPP | 1-1/2" - 4" | 2 Hr | 2 Hr |
| PVC - Thin Wall | 2" | 2 Hr | 2 Hr |



- Floor or Wall Assembly:** Code conforming 2 hour fire-rated floor or wall assembly, nominal 4-1/2" thickness normal or low density cast concrete, or hollow core concrete. Wall may also be constructed of nominal 8" thick concrete blocks (filled or unfilled).
Hollow Core Concrete (Not Shown): Seal the annular space at pipe penetration on the floor side with a 1/4" thickness of *3M™ CP-25WB+ Caulk, *3M™ Fire Barrier IC 15 WB+ Sealant or *3M™ FireDam™ 150+ Caulk, flush with floor surface. Caulk is applied over 1" thickness of mineral wool.
- Penetrant:** (See table of ratings) Nominal 4" diameter, Schedule 40, ccABS, ABS, PVC, System XFR, CPVC and FRPP pipes for use in DWV (Drain, Waste and Vent) or Closed (Process and Supply) piping systems, and PVC - Thin Wall Vacuum Tubing (nominal 2" diameter), ratings achieved will equal that of floor or wall assembly.
 - Nominal 6" diameter, Schedule 40, PVC and System XFR pipe.
- Firestop System Component:** *3M™ Interam™ Ultra PPD or *3M™ Fire Barrier Ultra RC Pack: Sized appropriately for pipe diameter, secured with *3M™ Ultrafast™ Anchors or steel masonry anchors 1/4" diameter x 1-1/4" long over fender washers. To reduce opening size backfill annular space with a non-shrink grout. Use *3M™ Interam™ Ultra PPD-1.5 for PVC - Thin Wall Vacuum Tubing (nominal 2" diameter).
 - *3M™ Interam™ PPD-6: Installed onto the pipe (Item 2b) over aluminum foil tape (Item 3b), secured with steel masonry anchors 1/4" diameter x 1-1/4" long over fender washers.

3M™ Interam™ Ultra PPD Size Chart

| Device | Nominal Pipe ID | Max. Hole Size |
|---------|-----------------|----------------|
| PPD-1.5 | 1-1/2" | 2-1/2" |
| PPD-2 | 2" | 3" |
| PPD-3 | 3" | 4" |
| PPD-4 | 4" | 5" |
| PPD-6 | 6" | 7" |

3M™ Ultra RC Pack Size Chart

| Device | Nominal Pipe ID | Max. Hole Size |
|-----------|-----------------|----------------|
| RC Pack 2 | 2" | 3" |
| RC Pack 3 | 3" | 4" |
| RC Pack 4 | 4" | 5" |

- Aluminum Foil Tape: Wrap pipe with one layer of tape covering 4" of pipe length.

**Sealant (Optional): *3M™ CP-25WB+ Caulk, *3M™ Fire Barrier IC 15 WB+ Sealant or *3M™

FireDam™ 150+ Caulk to fill the annular space at the pipe penetration as a smoke seal.

CPVC Pipe - Use only *3M™ Fire Barrier IC 15 WB+ Sealant.

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*Components bearing the Warnock Hersey Certification Mark.

**May be used, however, is not require to achieve ratings.

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3M Fire Protection Products

Through Penetrations Applicators and Specifiers Guide