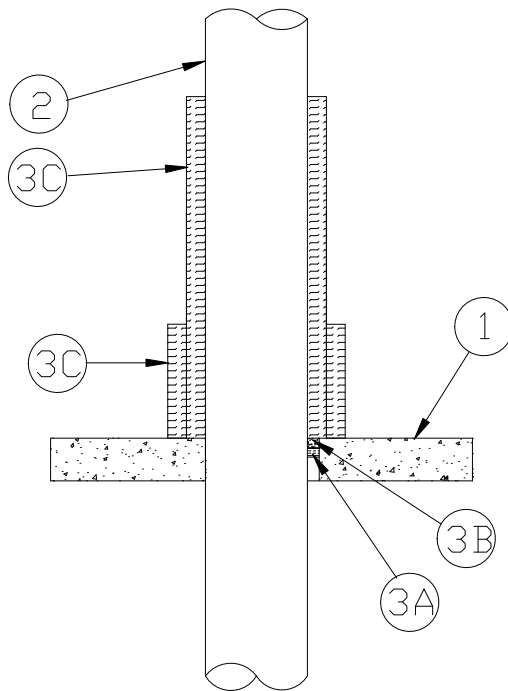


* NOTE
THIS MATERIAL WAS EXTRACTED BY 3M FIRE PROTECTION PRODUCTS
FROM THE 2005 EDITION OF THE UL FIRE RESISTANCE DIRECTORY

System No. F-A-1057
August 23, 2004
F Rating - 2 Hr
T Rating - 2 Hr
L Rating at Ambient - 2 CFM/sq ft
L Rating at 400°F - Less than 1 CFM/sq ft
W Rating - Class I (See Item 3)



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Max diam of opening 12-3/4 in. (324 mm).

2. Through Penetrant - One metallic pipe or tubing installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening shall be min of 0 in. (point contact) to max 2 in. (0 mm to max 51 mm). Penetrant to be rigidly supported on both sides of floor assembly. The following types and sizes of penetrants may be used:

- A. **Steel Pipe** - Nom 10 in. (254 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. **Iron Pipe** - Nom 10 in. (254 mm) diam (or smaller) cast or ductile iron pipe.
- C. **Copper Tubing** - Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
- D. **Copper Pipe** - Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. Firestop System - The details of the firestop system shall be as follows:

A. **Packing Material** - Min 1 in. (25 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Materials*** - **Caulk, Sealant or Putty** - Min 1 in. (25 mm) thickness of caulk or putty applied within the annulus, flush with top surface of floor.

3M COMPANY - CP 25WB+ caulk, FB-3000 WT sealant or MP+ Stix putty.
(The W Rating applies only when FB-3000 WT sealant is used.)

C. **Duct Wrap Material*** - Nom 2 in. (51 mm) thick duct wrap tightly wrapped around penetrant to extend 36 in. (914 mm) above floor. An additional layer of nom 2 in. (51 mm) thick duct wrap tightly wrapped around the first layer of duct wrap to extend 12 in. (305 mm) above floor. All longitudinal seams of both layers of duct wrap are sealed with foil tape.

3M COMPANY - Fire Barrier Duct Wrap 20A

*Bearing the UL Classification Marking

CONSULT CURRENT INDEPENDENT LABORATORIES (UL, OPL) FOR SYSTEMS OR DESIGN DETAILS

PROJECT	SHT 1 of 1	SIGNATURE	DATE
	FA1057.DWG		
SYSTEM/DESIGN NO. F-A-1057	DATE	NOT FOR USE AS CONSTRUCTION DOCUMENT. DRAWING NOT TO SCALE	
3M FIRE PROTECTION PRODUCTS		All statements, technical information and recommendations contained herein are based on tests we believe reliable, however, since the conditions of use and application are beyond our control, 3M shall not be liable for any damage, direct or consequential, resulting from the use of this material or design. 3M's only remedy shall be to replace any of our products proved to be defective.	