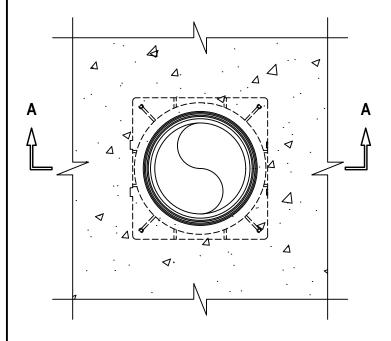


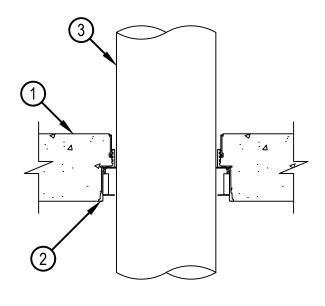
System No. F-A-2412

| ANSI/UL1479 (ASTM E814) | | | | |
|--|--|--|--|--|
| F Ratings — 2 and 3 Hr (See Item 3) | | | | |
| T Rating — 0 Hr | | | | |
| L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3) | | | | |
| L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3) | | | | |
| W Rating — Class 1 (See Item 3) | | | | |

TOP VIEW

SECTION A-A





System No. F-A-2412

- 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.
- 2. Firestop Device* Cast in place firestop device, with optional accessories including sleeve extension, permanently embedded during concrete placement or grouted in concrete assembly in accordance with accompanying installation instructions with a max 2 in. (51 mm) projection above the top surface of the concrete.
 - HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4", CFS-CID U 6"
- 3. Through Penetrants One nonmetallic pipe or conduit to be installed within the firestop system. Pipe or conduit to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipes or conduits may be used:
 - A. Acrylonitrile Butadiene Styrene (ABS) Pipe Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Fire Retardant Polypropylene (FRPP) Pipe Nom 6 in. (152 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

The L and W Ratings of the firestop system are dependent upon type and nom diam of the penetrant and the firestop device size as shown below:

| Penetrant | Nom Pipe Diameter | Device Size | W-Rating** | L-Rating | F Rating (Hr) |
|-----------|-------------------------------|-------------------------------|------------|----------|---------------|
| 3A | 1-1/4 (32 mm) | CFS-CID U 2", CFS-CID U 2" CA | Yes | Yes | 2 |
| 3A | 1-1/2 to 2 in. (38 to 51 mm)) | CFS-CID U 2", CFS-CID U 2" CA | Yes | Yes | 3 |
| 3A and 3B | 1-1/2 to 2 in. (32 to 51 mm) | CFS-CID U 2", CFS-CID U 2" CA | Yes | Yes | 3 |
| 3A and 3B | 2 to 3 in. (51 to 76 mm) | CFS-CID U 3" | Yes | Yes | 3 |
| 3A | 3 to 4 in. (76 to 102 mm) | CFS-CID U 4" | Yes | Yes | 3 |
| 3A | 6 in (152 mm) | CFS-CID U 6" | Yes | Yes | 3 |

^{**} When W-rating is required – When nominal pipe diameter matches device size, pipe may be installed in any orientation. When nominal pipe diameter is smaller than device size, pipe must be installed from the bottom.



^{*} Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.