



XHEZ.W-L-3361 Through-penetration Firestop Systems

[Page Bottom](#)

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Through-penetration Firestop Systems

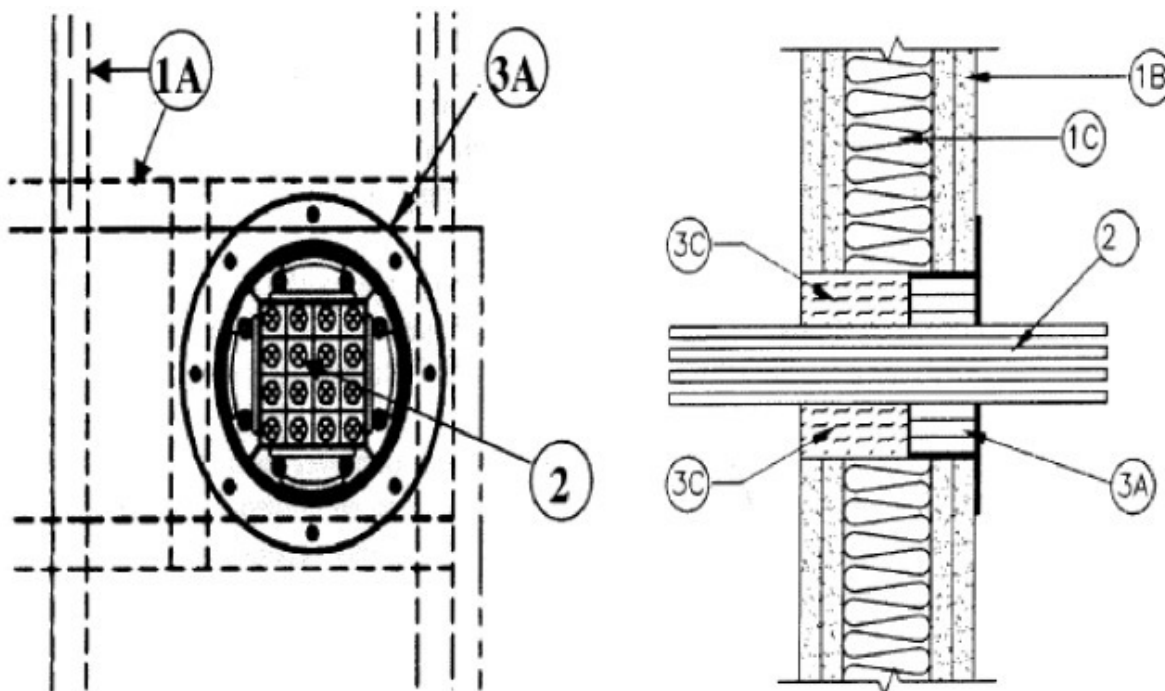
[See General Information for Through-penetration Firestop Systems](#)

System No. W-L-3361

January 14, 2010

F Rating — 1, 2 Hr

T Ratings — 0, 3/4, 1, 1-1/2 and 2 Hr (See Item 2)



1. Wall Assembly — The 1 or 2 h fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Studs - (Not Shown) — Channel-shaped, 3-5/8 in. deep and 1-5/8 in. (wide with 1/2 in. folded back flanges. Fabricated from min 20 MSG galv steel. Max stud spaced 16 in. OC. Additional framing members to be installed to form a rectangular box having dimensions which are max 1/4 in. greater than the width and height of the firestop device frame (Item 3A), excluding mounting flanges. The opening must be framed in such manner to meet structural requirements of U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory. Max area of framed opening is 90 in.² (R-200 Device). Max dimension of framed opening is 9-1/2 in. wide and 9-1/2 in. high (R-200 Device).

B. Wallboard, Gypsum* — For 1-hr rating, One layer of nom 5/8 in. Type X gypsum wallboard, as specified in individual Wall and Partition Design. For 2-hr rating, Two layers of nom 1/2 in. thick, Type

C gypsum wallboard, as specified in the individual Wall and Partition Design.

C. **Batts and Blankets*** — Mineral wool batt, completely filling the stud cavity. See Batts and Blankets (BZJZ) category for names of manufacturers.

2. **Cables** — Within the loading area for each firestop device module the cables may represent a 0 to 100 percent visual fill. Cables to be rigidly supported on both sides of wall assembly. Any combination of the following types and sizes of cables may be used:

A. Max 3/C No. 14 AWG MC type copper conductor power cable with XLP insulation and PVC jacket materials. When max 3/C No. 14 AWG copper conductor power cable is used, T Rating is 1 hr and 2 hr for 1 and 2 hr rated assemblies, respectively.

B. Max 2/C No. 14 AWG metal clad or Tech 90 type copper conductor control power cable with XLP insulation and PVC jacket materials. When max 2/C No. 14 AWG copper conductor control power cable is used, T Rating is 1 hr and 2 hr for 1 and 2 hr rated assemblies, respectively.

C. Max 4/C No. 8 AWG copper conductor power cable with Crosslinked Polyolefin insulation and Neoprene jacket materials. When max 4/C No. 8 AWG copper conductor power cable is used, T Rating is 0 hr and 3/4 hr for 1 and 2 hr rated assemblies, respectively.

D. Max 19/C No. 14 AWG TC or TC-ER type copper conductor control power cable with Ethylene Propylene Rubber insulation and Chlorinated Polyethylene (CPE) jacket materials. When max 19/C No. 14 AWG copper conductor control power cable is used, T Rating is 3/4 hr and 1-1/2 hr for 1 and 2 hr rated assemblies, respectively.

3. **Firestop System** — The firestop system shall consist of the following:

A. **Firestop Devices*** — Circular firestop device for use in preformed openings. The firestop devices shall be inserted into the framed opening and friction fit on one side of the wall assembly. Each device consists of single/multi diameter elastomeric sealing module(s) and a steel compression plate. The square opening(s) of each device frame shall be filled with multiple rows of multi diameter elastomeric sealing modules with a max of one cable in each sealing module. The steel flange of each firestop device shall be secured to the steel stud framing of the wall assembly, through the gypsum wallboard layer, by means of No. 8 by min 3 in. long self-drilling, self-tapping steel screws through the pre-drilled holes spaced max 90° in the device frame mounting flange. The sheets of the modules halves are removed one by one until a gap of 0.04 in. is formed between the two module halves. After installation of the modules into the device, the nuts of the compression plate are tightened to form an effective seal around the cables. The firestop devices shall be installed in accordance with the accompanying installation instructions.

ROXTEC INTERNATIONAL AB — Types R-70, R-75, R-100, R-125, R-127, R-150, R-200 and their corresponding flanges SLFR70, SLFR75, SLFR100, SLFR125, SLFR127, SLFR150 and SLFR200.

B. **Silicone RTV Sealant** — (Not Shown) - A min 1/4 in. diam bead of silicone RTV sealant shall be applied as a gasket between the device frame mounting flange and the gypsum wallboard. The sealant bead shall be located between the edge of the opening and the line of fasteners around the entire perimeter of the framed opening.

C. **Packing Material** — Pieces of min 3 in. thick 2.76 pcf density mineral wool batt insulation cut to line four sides of through opening within wall cavity. Pieces cut to length and tightly friction-fit between framing of wall opening and cables and in-between cables and made flush with wall surface.

*Bearing the UL Classification Mark

Last Updated on 2010-01-14

[Questions?](#)

[Print this page](#)

[Notice of Disclaimer](#)

[Page Top](#)

Copyright © 2010 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2010 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge.

