



XHEZ.W-L-1403 Through-penetration Firestop Systems

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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.
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Through-penetration Firestop Systems

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

System No. W-L-1403

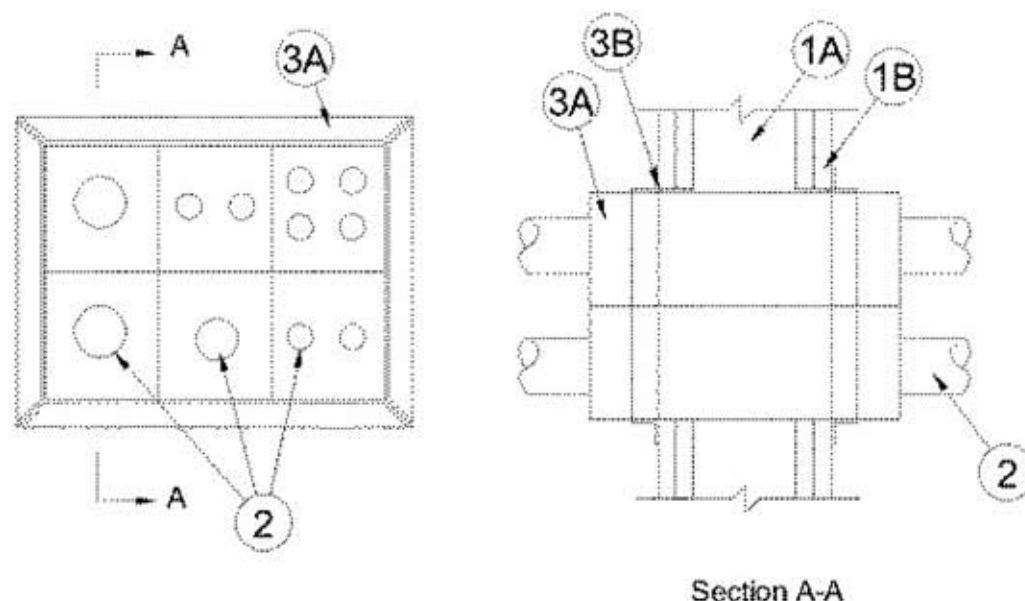
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F Ratings — 1 or 2 Hr (See Item 1)

T Rating — 0 Hr

L Rating At Ambient — Less Than 1 CFM/Device

L Rating At 400 F — Less Than 1 CFM/Device



1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max area of opening is 99 in.² (635 cm²) with a max dimension of 12-1/8 in. (308 mm) for square devices. Max diam of opening is 2-1/2 in. (64 mm) for 2 in. (51 mm) round devices. Max diam of opening is 4-1/2 in. (114 mm) for 4 in. (102 mm) round devices.

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrant — One or more metallic pipe, tubing or conduit may be installed concentrically or eccentrically within each firestop device (Item 3A). If multiple through penetrants are installed within the firestop device, a min 1/4 in. (6 mm) annular space is required between the through penetrants. Through penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of through penetrants may be used:

A. Steel Pipe — Nom 3 in. (76 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe — Nom 3 in. (76 mm) diam (or smaller) cast or ductile iron pipe.

C. Copper Tubing — Nom 3 in. (76 mm) diam (or smaller) Type L (or heavier) copper tube.

D. Copper Pipe — Nom 3 in. (76 mm) diam (or smaller) Regular (or heavier) copper pipe.

E. Conduit — Nom 3 in. (76 mm) diam (or smaller) steel electric metallic tubing (EMT) or rigid steel conduit.

F. Through-Penetrating Product* - Flexible Metal Piping — Nom 1-1/4 in. (32 mm) diam (or smaller) steel flexible metal piping.

OMEGA FLEX INC — TracPipe Flexible Gas Piping

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

A. Firestop Device* — A max of six square firestop devices may be ganged together. As an

alternate, one round device may be centered within a round opening. Each device consists of a nom 2-1/2 by 2-1/2 by 10 in. (64 by 64 by 254 mm), a nom 4 by 4 by 10 in. (102 by 102 by 254 mm), a nom 2 in. (51 mm) diam by 10 in. (254 mm) or a nom 4 in. (102 mm) diam by 10 in. (254 mm) powder coated steel transit incorporating internal intumescent material, foam plugs and mounting flanges. In nom 2 -1/2 by 2-1/2 in. (64 by 64 mm) devices, the max nom diam of the through penetrant (Item 2) shall not exceed 1-1/4 in. (32 mm). Firestop device(s) to be installed within opening with ends projecting an equal distance beyond each surface of wall assembly in accordance with the accompanying installation instructions. The annular space between device(s) and periphery of opening shall be min 0 in. (0 mm, point contact) to max 1/8 in. (3 mm). Firestop device(s) secured in place by means of fill material (Item 3B) and steel split mounting flanges sized to accommodate the firestop device. Steel split mounting flanges installed on both sides of wall after installation of fill material, and secured together with supplied steel set screws. Nom 1-1/2 in. (38 mm) thick pre-cut foam plugs sized to accommodate the through penetrant and installed flush with each end of device on both sides of wall assembly.

ABESCO LTD — CT120/R or CT120 Transit

B. Fill, Void or Cavity Materials* - Sealant — Min 1/8 in. (3 mm) bead of fill material applied at interface of gypsum board and firestop devices immediately prior to the installation of the mounting flanges. An additional bead of caulk shall be placed between ganged devices on both sides of wall when multiple devices are used.

ABESCO LTD — CP310 FR Acrylic Intumescent Caulk

*Bearing the UL Classification Mark

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