



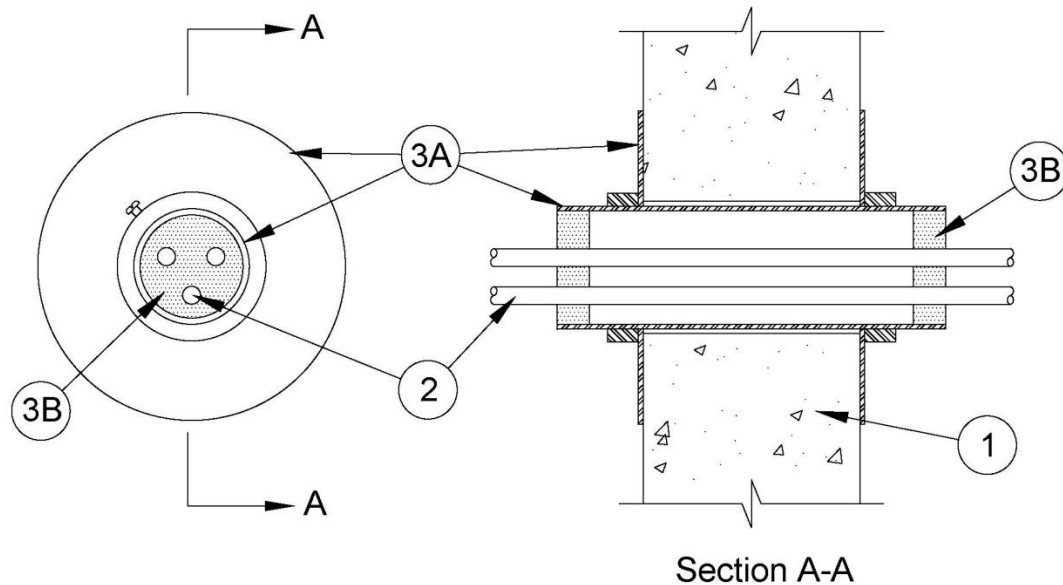
# Unique Fire Stop Products

UL XHEZ.W-J-3109  
Concrete 2 Hr. Through-penetration Firestop System  
using Unique Fire Stop Products - Smooth Penetrator

Guide XHEZ  
Through-Penetration Firestop Systems

April 12, 2010

System No. W-J-3109  
F Rating - 2 Hr  
T Rating - 0 Hr



1. **Wall Assembly** — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks**\*.

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Cables** — Aggregate cross-sectional area of cables in Smooth Sleeve to be min 8 percent to max 48 percent of the aggregate cross-sectional area of the Smooth Sleeve. 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 200 pair No. 24 AWG (or smaller) copper conductor cable with polyvinyl chloride (PVC) jacketing and insulation.
- B. Max 1/C, 750 kcmil power cable with copper conductors and cross-linked polyethylene (XLPE) jacketing.
- C. Max 3/C No. 2/0 AWG (or smaller) aluminum or copper conductor service entrance cable with PVC insulation and jacket.
- D. Max 3/C No. 8 AWG (or smaller) nonmetallic sheathed (Romex) cable with copper conductors, PVC insulation and jacket.

E. Max 7/C No. 2/0 AWG (or smaller) multiconductor power and control cables with XLPE or PVC insulation and XLPE or PVC jacket.

F. Max RG59/U (or smaller) coaxial cable with fluorinated ethylene insulation and jacketing.

G. Max 62.5/48 fiber optic cable with PVC insulation and jacketing.

H. Max 4 pair No. 24 AWG (or smaller) copper conductor category 5 with Hylar insulation and jacket.

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

A. **Firestop Device\*** — Smooth steel sleeve device incorporating flat washers secured by sliding compression couplers. Device shall be installed around cables in accordance with the accompanying installation instructions. Device provided in nom 1, 2 and 4 in. (25, 51 and 102 mm) sizes. Max diam of opening in wall for 1, 2 and 4 in. (25, 51 and 102 mm) size devices are 1-1/4, 2-7/16 and 4-1/2 in. (32, 62 and 114 mm) respectively.

**UNIQUE FIRE STOP PRODUCTS INC — Smooth Penetrator**

B. **Fill, Void or Cavity Material\* - Putty** — Min 1 in. (25 mm) thickness of fill material applied within the Smooth Sleeve, flush with both ends.

**HILTI CONSTRUCTION CHEMICALS, DIV OF**

**HILTI INC** — CP 618

\* Bearing the UL Classification Mark

---

## **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.

---

Reprinted from the UL Online Certification Directory with permission from Underwriters Laboratories Inc.

Copyright © 2011 Underwriters Laboratories Inc. ®

Last Update: 2011-06-22