

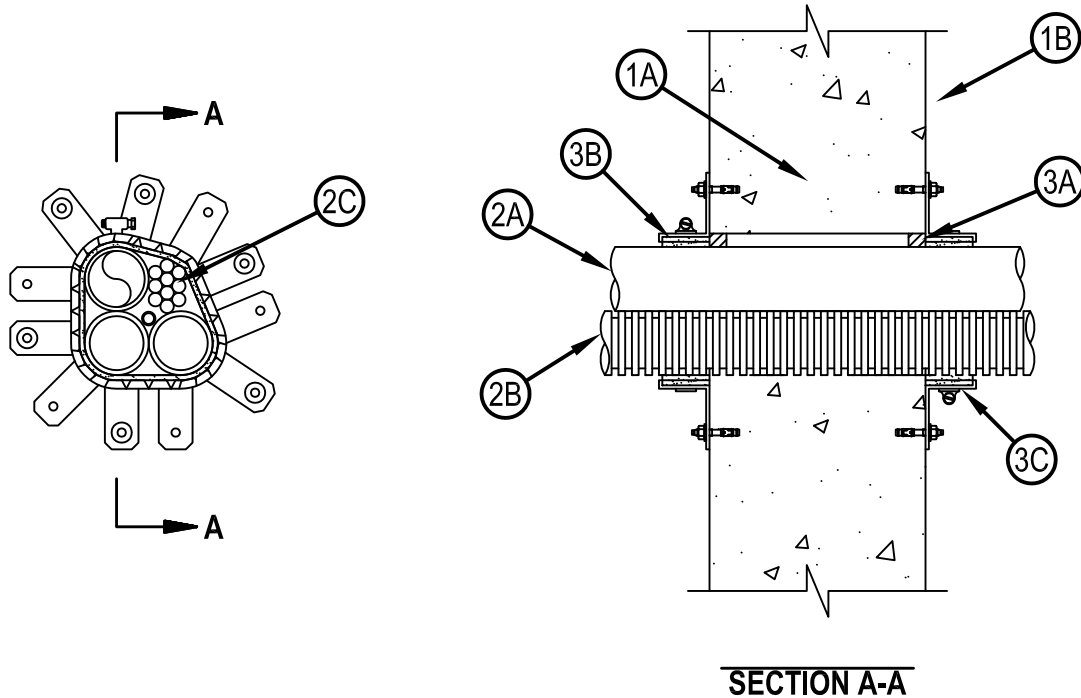


Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. W-J-8045

WJ 8045

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 3/4 Hr	FT Rating — 3/4 Hr
	FH Rating — 2 Hr
	FTH Rating — 3/4 Hr



SECTION A-A

1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 4 in. (102 mm).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One or more of the following types of through penetrants shall be installed within the opening. The aggregate cross-sectional area of the penetrants does not exceed 66 percent of the cross-sectional area of the wall opening. The annular space between penetrants, and between penetrants and the periphery of opening, shall be min 0 in. (point contact) to max 1 in. (25 mm). Penetrants to be rigidly supported on both sides of wall assembly.
 - 2A. Metallic Penetrants — Any combination of the following types and sizes of metallic pipes, conduits or tubing may be installed within the opening:
 - A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
 - B. Iron Pipe — Nom 2 in. (51 mm) diam (or smaller) cast or ductile iron pipe.
 - C. Conduit — Nom 2 in. (51 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).
 - 2B. Electrical Nonmetallic Tubing (ENT)+ — Nom 2 in. (51 mm) diam (or smaller) ENT formed of PVC, installed in accordance with National Electrical Code (NFPA No. 70). Max two tubes may be installed within opening.
See Electrical Nonmetallic Tubing (FKHU) in UL Electrical Construction Materials Directory for names of manufacturers.
 - 2C. Cables — Nom 2 in. (51 mm) diam (or smaller) tight bundle of cables. Any combination of the following types and sizes of cables may be used:
 - A. Max 200 pair No. 24 AWG (or smaller) copper conductor with polyvinyl chloride (PVC) insulation and jacket materials.
 - B. Max 1/C No. 500 kcmil (or smaller) copper conductor cable with cross-linked polyethylene (XLPE) jacket.
 - C. Max 3/C No. 8 AWG (or smaller) copper conductor metal clad cable.
 - D. Max RG/U coaxial cable with fluorinated ethylene insulation and jacket.
 - E. Max 4 pair No. 24 AWG (or smaller) copper conductor data cable with PVC jacket and insulation.



Hilti Firestop Systems

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January 21, 2015

System No. W-J-8045

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

A. Fill, Void or Cavity Material* - Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly. Fill material forced into grouped penetrant interstices to max extent possible within opening.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

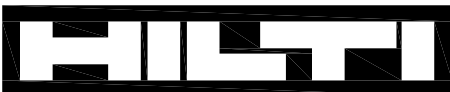
B. Fill, Void or Cavity Material* — Wrap Strip - Nom 3/16 in. (5 mm) thick by 1-3/4 in. (44 mm) wide intumescent wrap strip. Wrap strip is continuously wrapped around the outer circumference of bundled penetrants two times with ends butted and held in place with tape. Wrap strip installed flush with both surfaces of wall assembly.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E- W25/1-3/4" Wrap Strip

C. Steel Collar — Steel collar fabricated from coils of precut min 0.016 in. (0.41 mm) thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be min 1-3/4 in. (44 mm) deep with 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs on 1-3/4 in. (44 mm) centers for securement to both surfaces of wall. In addition, collars contain preformed retainer tabs 1/2 in. (13 mm) wide by 3/16 in. (5 mm) long, located opposite the anchor tabs. Collar shall be tightly wrapped over the wrap strip, overlapping min 1 in. (25 mm) at seam and compressed with a min 1/2 in. (13 mm) wide by 0.028 in. (0.71 mm) thick stainless steel band at collar mid-height. Every other anchor tab of collar secured to surface of wall with 1/4 in. (6 mm) diam by 1-3/4 in. (44 mm) long steel expansion type masonry fasteners, 1-1/2 in. (38 mm) long concrete screw anchors or 0.145 in.(3.7 mm) diam by 1-1/4 in.(32 mm) long powder actuated fasteners utilizing a 1-7/16in. (36 mm) diam by 1/16 in.(1.6 mm) thick steel washer.

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

+ Bearing the UL Listing Mark



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