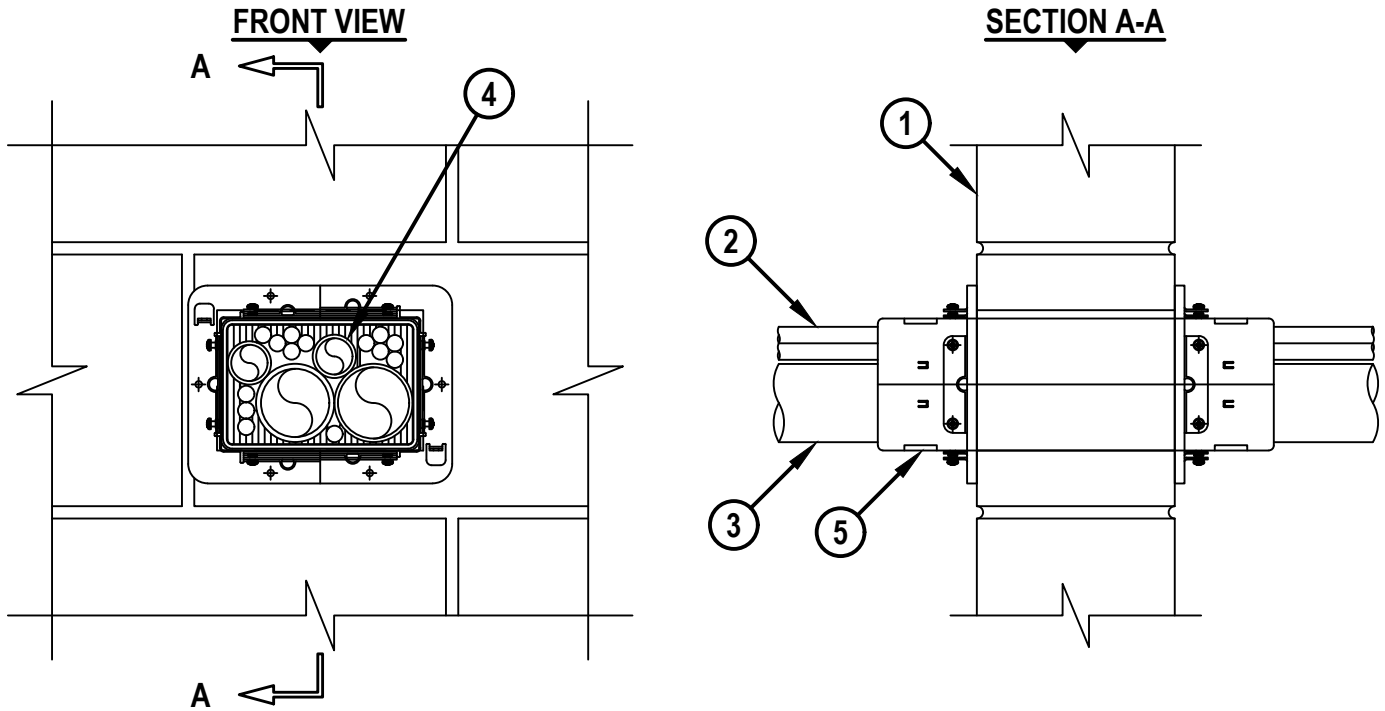


# MULTIPLE PENETRANTS THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

T-RATING = 1-HR. OR 1-1/2-HR.

WJ8103a.092923



## 1. CONCRETE WALL ASSEMBLY (2-HR. FIRE RATING) :

- A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 6" THICK).
- B. ANY UL/cUL CLASSIFIED CONCRETE BLOCK WALL.



**Hilti Firestop Systems**

HILTI, Inc.  
Plano, Texas USA (800) 879-8000

Sheet	1 of 2
Scale	1 1/64" = 1"
Date	Sep. 29, 2023

Drawing No.

**WJ**  
**8103a**

*Saving Lives through Innovation and Education*

**MULTIPLE PENETRANTS THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY**

F-RATING = 2-HR.

T-RATING = 1-HR. OR 1-1/2-HR.

WJ8103a.092923

**2. CABLE BUNDLE TO BE ANY COMBINATION OF THE FOLLOWING :**

- A. MAXIMUM 100 PAIR NO. 24 AWG TELEPHONE CABLE WITH PVC JACKET AND INSULATION.
- B. MAXIMUM 7/C NO. 12 AWG COPPER CONDUCTOR CONTROL CABLE WITH PVC OR XLPE JACKET AND INSULATION.
- C. MAXIMUM 4/0 AWG TYPE RHH GROUND CABLE.
- D. MAXIMUM 4 PAIR NO 23 AWG CAT 7 COMPUTER CABLE.
- E. MAXIMUM RG 6/U COAXIAL CABLE WITH FLUORINATED ETHYLENE INSULATION AND JACKETING.
- F. MAXIMUM 1/2" FIBER-OPTIC CABLE WITH PVC OR PE JACKET AND INSULATION.
- G. MAXIMUM 20/C NO. 22 AWG SHIELDED PRINTER CABLE WITH PVC JACKET.
- H. MAXIMUM 1/4" DIAMETER S-VIDEO CABLE CONSISTING OF 2 MAX 24 AWG 75 OHM COAX OR TWISTED PAIR CABLE WITH PE INSULATION AND PVC JACKET.
- I. MAXIMUM 2/C NO. 18 AWG POWER OR NON-POWER LIMITED FIRE ALARM CABLE WITH OR WITHOUT METAL JACKET (MANUFACTURED BY AFC CABLE SYSTEMS, INC.).
- J. MAXIMUM 3/C NO. 12 AWG METAL CLAD CABLE.
- K. ANY CABLES, METAL-CLAD CABLES, OR ARMORED CABLES CURRENTLY LISTED UNDER THE THROUGH PENETRATING PRODUCTS CATEGORY.

**3. [OPTIONAL] ONE OR MORE OF THE FOLLOWING METALLIC PIPES MAY BE BUNDLED TOGETHER WITH THE OTHER PENETRATING ITEMS :**

- A. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
- B. MAXIMUM 2" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
- C. MAXIMUM 2" NOMINAL DIAMETER STEEL CONDUIT OR STEEL EMT.
- D. MAXIMUM 3/4" NOMINAL DIAMETER FLEXIBLE STEEL CONDUIT.

**4. [OPTIONAL] ONE OR MORE OF THE FOLLOWING NONMETALLIC PIPES MAY BE BUNDLED TOGETHER WITH THE OTHER PENETRATING ITEMS :**

- A. MAXIMUM 2" NOMINAL DIAMETER ENT (PVC OR HDPE).
- B. MAXIMUM 1/2" NOMINAL DIAMETER DURA-LINE MICRODUCT.

**5. HILTI CFS-MSL [S, M, OR L] MODULAR SLEEVES TO BE CENTERED IN THE WALL. DEVICE TO BE INSTALLED WITH A GASKET AND HILTI CFS-MSL P [S, M, OR L] DEVICE FLANGE ON BOTH SIDES OF WALL AND TIGHTENED USING SET SCREWS IN DEVICE FLANGE.****NOTES :** 1. MAXIMUM SIZE OF OPENING = 6-1/4" x 4-1/4".

2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/4".

3. CABLES MAY REPRESENT 0% TO 100% VISUAL FILL OF EACH FIRESTOP DEVICE.

**Hilti Firestop Systems**

HILTI, Inc.  
Plano, Texas USA (800) 879-8000

Sheet 2 of 2

Scale -

Date Sep. 29, 2023

Drawing No.

**WJ**  
**8103a**
***Saving Lives through Innovation and Education***