

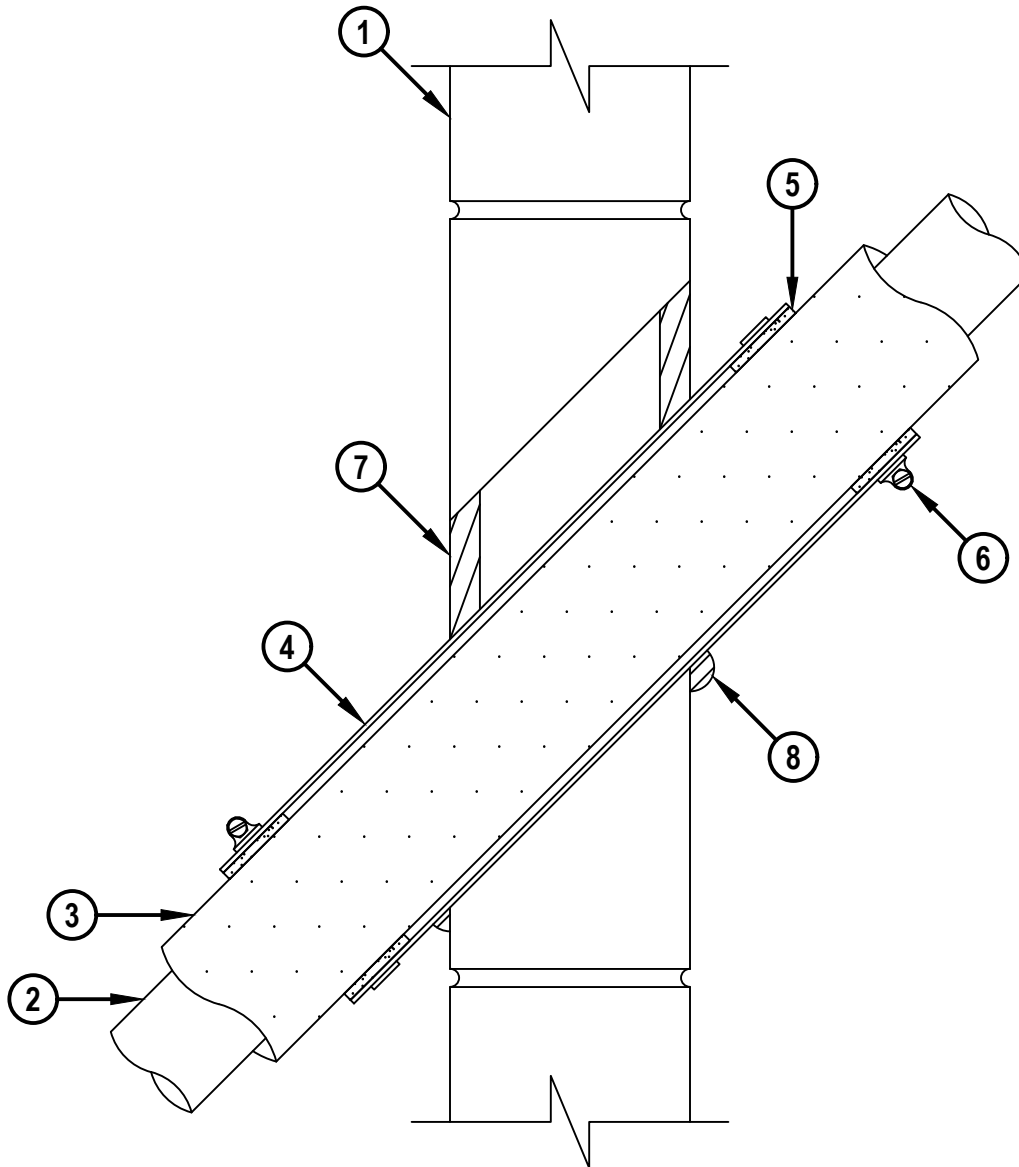
UL SYSTEM NO. W-J-2431

INSULATED PLASTIC PIPE THROUGH CONCRETE WALL OR BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

T-RATING = 2-HR.

CROSS-SECTIONAL VIEW



WJ2431a.050525

HILTI
Hilti Firestop Systems

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

Sheet	1 of 2
Scale	1/4" = 1"
Date	May 05, 2025

Drawing No.

WJ
2431a

Saving Lives through Innovation and Education

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1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING) :
 - A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MINIMUM 5" THICK).
 - B. ANY UL CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING AND INSTALLED AT AN ANGLE NOT GREATER THAN 45° FROM PERPENDICULAR :
 - A. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (SCHEDULE 80) (CELLULAR OR SOLID CORE).
 - B. MAXIMUM 2" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY).
 - C. MAXIMUM 2" NOMINAL DIAMETER CPVC PLASTIC PIPE (SCHEDULE 40 OR 80) (CLOSED PIPING SYSTEM ONLY).
3. MAXIMUM 1/2" THICK GLASS-FIBER PIPE INSULATION.
4. SHEET METAL SLEEVE (MIN. 28 GA.) HAVING A MINIMUM 1" LAP ALONG LONGITUDINAL SEAM. LENGTH OF SLEEVE TO EXTEND 2" BEYOND EACH SURFACE OF WALL.
5. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING ONCE, AND HELD IN PLACE WITH TAPE. WRAP STRIP IS INSTALLED FLUSH WITH ENDS OF SHEET METAL SLEEVE.
6. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP(S) FASTENED AROUND SHEET METAL SLEEVE AT THE CENTER OF EACH WRAP STRIP.
7. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT.
8. MINIMUM 1/2" BEAD HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

NOTES : 1. DIMENSIONS OF OVAL OPENING = 5-1/4" x 8-1/4".

2. ANNULAR SPACE BETWEEN SLEEVE AND PERIPHERY OF OPENING = MIN. 0", MAX. 1-3/4".

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