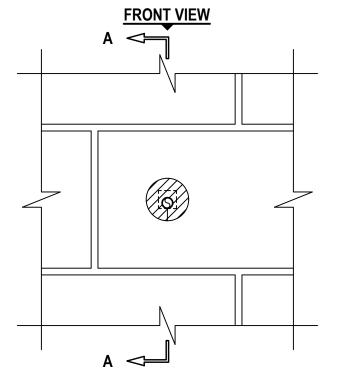
UL/cUL SYSTEM NO. W-J-1248

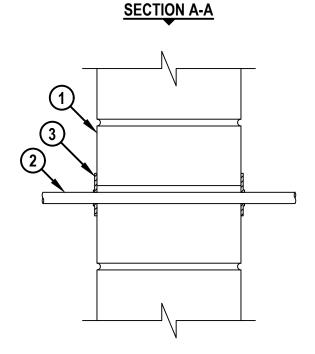
METAL PIPE THROUGH CONCRETE WALL OR CONCRETE BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

L-RATING AT AMBIENT = LESS THAN 1 CFM / OPENING L-RATING AT 400°F = LESS THAN 1 CFM / OPENING

T-RATING = 1/2-HR. OR 2-HR. (SEE NOTES BELOW)







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

Sheet	1 of 2
Scale	3/16" = 1"
Date	Feb. 05, 2025

Drawing No. WJ 1248d

UL/cUL SYSTEM NO. W-J-1248

METAL PIPE THROUGH CONCRETE WALL OR CONCRETE BLOCK WALL ASSEMBLY

F-RATING = 2-HR.

T-RATING = 1/2-HR. OR 2-HR. (SEE NOTES BELOW)
L-RATING AT AMBIENT = LESS THAN 1 CFM / OPENING
L-RATING AT 400°F = LESS THAN 1 CFM / OPENING

NJ1248d.02052

- 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.
- 2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
 - A. MAXIMUM 1/2" NOMINAL DIAMETER COPPER PIPE.
 - B. MAXIMUM 1" NOMINAL DIAMETER STEEL PIPE (SCH 40 OR HEAVIER).
 - C. MAXIMUM 1" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - D. MAXIMUM 1" NOMINAL DIAMETER RIGID OR FLEXIBLE STEEL CONDUIT.
 - E. MAXIMUM 1" NOMINAL DIAMETER STEEL EMT.
 - F. MAXIMUM 1" NOMINAL DIAMETER ALUMINUM EMT.
 - G. MAXIMUM 1" NOMINAL DIAMETER ALUMINUM CONDUIT.
 - H. MAXIMUM 1" NOMINAL DIAMETER ALUMINUM PIPE (SCH. 5 OR HEAVIER).
- 3. HILTI CFS-D 1" FIRESTOP PUTTY DISC PRESSED FIRMLY AROUND THE PIPE LAPPING NOMINAL 5mm ONTO PIPE COMPLETELY COVERING OPENING AND FIRMLY PRESSED TO LAP ONTO THE WALL. DISC SEAM TO BE FIRMLY PRESSED AND SEALED TIGHT.
 - NOTES: 1. OPENING MAY BE ROUND, RECTANGULAR, OR IRREGULAR WITH A MAXIMUM DIAMETER OR DIMENSION OF 1", OR ROUND WITH A MAXIMUM DIAMETER OF 1-1/4".
 - 2. ANNULAR SPACE (PENETRATIONS 2A THROUGH 2E) = MINIMUM 0".
 - 3. ANNULAR SPACE (PENETRATIONS 2F THROUGH 2H) = MINIMUM 0", MAXIMUM 1/8".
 - 4. WHEN OPENING EXCEEDS 1", MAXIMUM ANNULAR SPACE = 3/8".
 - 5. WHEN PENETRATION 2A IS INSTALLED, T-RATING IS 2-HR.
 - 6. WHEN PENETRATIONS 2B THROUGH 2H ARE INSTALLED, T-RATING IS 1/2-HR.
 - 7. WHEN PENETRATIONS 2F THROUGH 2H ARE INSTALLED, THE F-RATING IS 0-HR. UNDER THE CAN/ULC-S115 TESTING STANDARD.



HILTI, Inc. Plano, Texas USA (800) 879-8000
 Sheet
 2 of 2

 Scale

 Date
 Feb. 05, 2025

WJ 1248d

Saving Lives through Innovation and Education