

UL/cUL SYSTEM NO. W-J-1248

# METAL PIPE THROUGH CONCRETE WALL OR CONCRETE BLOCK WALL ASSEMBLY

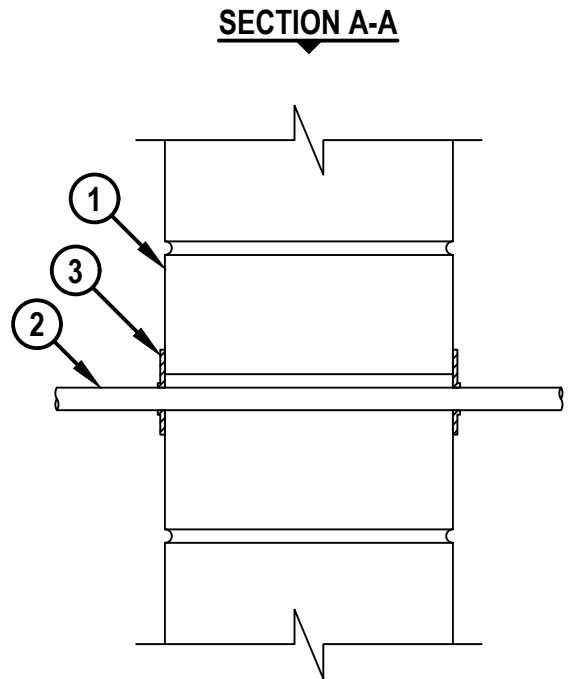
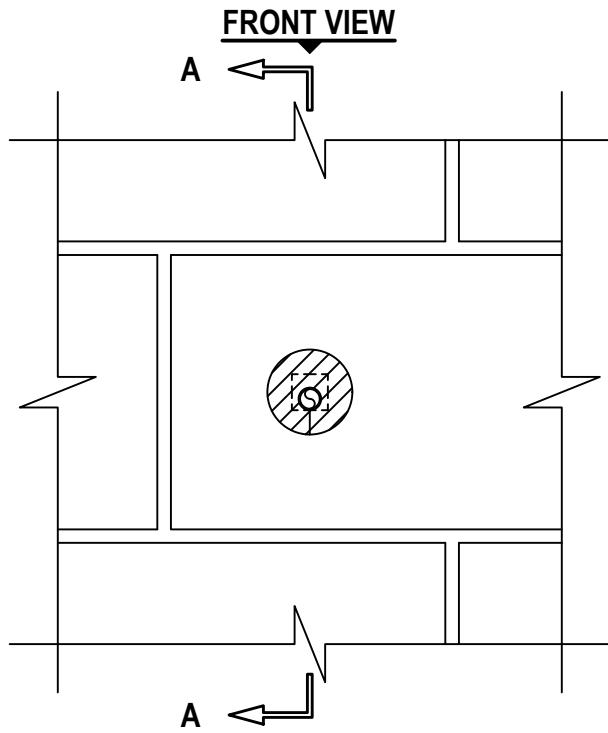
F-RATING = 2-HR. (SEE NOTES BELOW)

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

WJ1248e.123125



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

Sheet	1 of 2
Scale	3/16" = 1"
Date	Dec. 31, 2025

Drawing No.

**WJ**  
**1248e**

*Saving Lives through Innovation and Education*

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 T-RATING = 1/2-HR. OR 2-HR. (SEE NOTES BELOW)  
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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 (REGULAR OR HEAVIER).
  - B. MAXIMUM 1/2" NOMINAL DIAMETER COPPER TUBING (TYPE L AND TYPE K, OR HEAVIER).
  - C. MAXIMUM 1" NOMINAL DIAMETER STEEL PIPE (SCH 40 OR HEAVIER).
  - D. MAXIMUM 1" DIAMETER STAINLESS STEEL PIPE (SCH 10 OR HEAVIER).
  - E. MAXIMUM 1" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
  - F. MAXIMUM 1" NOMINAL DIAMETER RIGID OR FLEXIBLE STEEL CONDUIT.
  - G. MAXIMUM 1" NOMINAL DIAMETER STEEL EMT.
  - H. MAXIMUM 1" NOMINAL DIAMETER ALUMINUM EMT.
  - I. MAXIMUM 1" NOMINAL DIAMETER ALUMINUM CONDUIT.
  - J. 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 2G) = MINIMUM 0".  
 3. ANNULAR SPACE (PENETRATIONS 2H THROUGH 2J) = MINIMUM 0", MAXIMUM 1/8".  
 4. WHEN PENETRATIONS 2A THROUGH 2E ARE INSTALLED, AND THE OPENING EXCEEDS 1", MAXIMUM ANNULAR SPACE = 3/8".  
 5. WHEN PENETRATION 2A OR 2B IS INSTALLED, T-RATING IS 2-HR.  
 6. WHEN PENETRATIONS 2C THROUGH 2J ARE INSTALLED, T-RATING IS 1/2-HR.  
 7. WHEN PENETRATIONS 2H THROUGH 2J ARE INSTALLED, THE CAN/ULC-S115 TESTING STANDARD IS NOT APPLICABLE.



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