

**INSULATED METAL PIPE THROUGH GYPSUM WALL ASSEMBLY**

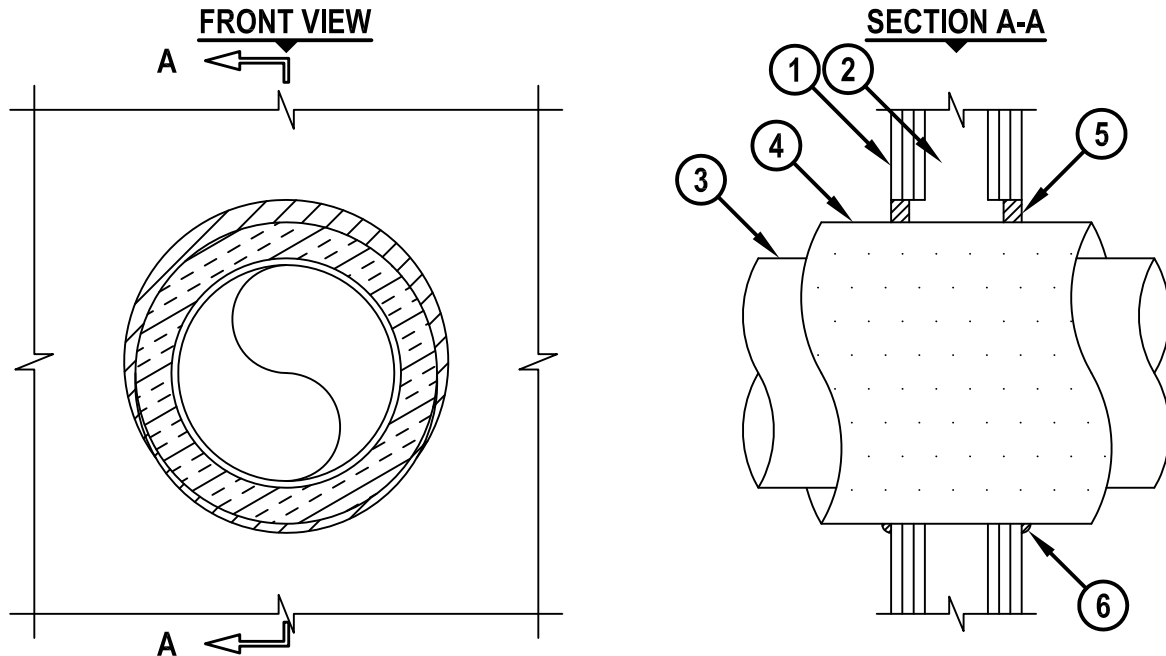
F-RATING = 1-HR., 2-HR., OR 3-HR.

T-RATING = 0-HR., 1/2-HR., 1-HR., OR 1-1/4-HR. (SEE UL FIRE RESISTANCE DIRECTORY)

L-RATING AT AMBIENT = 4 CFM / SQ FT

L-RATING AT 400° F = LESS THAN 1 CFM / SQ FT

WL5029q.011415



1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400, V400, OR W400 SERIES) (1-HR., 2-HR., OR 3-HR. FIRE-RATING) (3-HR. SHOWN).
2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" (FOR 1-HR. OR 2-HR. FIRE-RATING) OR 3-1/2" (FOR 3-HR. FIRE-RATING) WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
  - B. MAXIMUM 12" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
  - C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE OR TUBING (FOR 3-HR. WALLS, COPPER PIPE OR TUBING SHALL BE MAXIMUM 4" NOMINAL DIAMETER).
4. NOMINAL 1", 1-1/2" OR 2" THICK GLASS-FIBER PIPE INSULATION OR MAXIMUM 2" THICK CALCIUM SILICATE PIPE INSULATION (SEE NOTE NO. 4 BELOW).
5. HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT :
  - A. MINIMUM 5/8" DEPTH REQUIRED FOR 1-HR. OR 2-HR. FIRE-RATING.
  - B. MINIMUM 1" DEPTH REQUIRED FOR 3-HR. FIRE-RATING.
6. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

**NOTES :** 1. MAXIMUM DIAMETER OF OPENING = 18-5/8".  
 2. ANNULAR SPACE (FOR 1-HR. OR 2-HR. FIRE-RATING) = MINIMUM 0", MAXIMUM 1-7/8".  
 3. ANNULAR SPACE (FOR 3-HR. FIRE-RATING) = MINIMUM 0", MAXIMUM 1-1/4".  
 4. WHEN CALCIUM SILICATE PIPE INSULATION IS USED, SECURE INSULATION TO PIPE WITH STAINLESS STEEL BANDS OR MINIMUM 18 AWG STAINLESS STEEL WIRE AT MAXIMUM 12" O.C.



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Sheet	1 of 1
Scale	3/32" = 1"
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Drawing No.  
**WL  
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