

# INSULATED PIPE THROUGH GYPSUM WALL ASSEMBLY

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

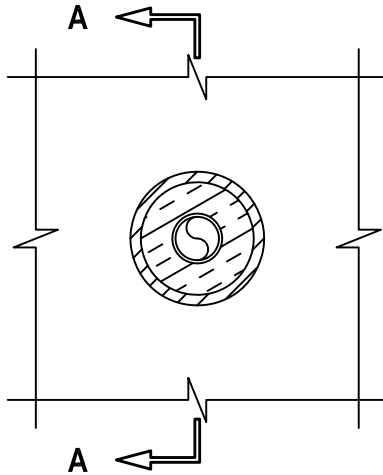
T-RATING = 0-HR., 1-1/2-HR., OR 1-3/4-HR.

L-RATING AT AMBIENT = 4 CFM / SQ FT

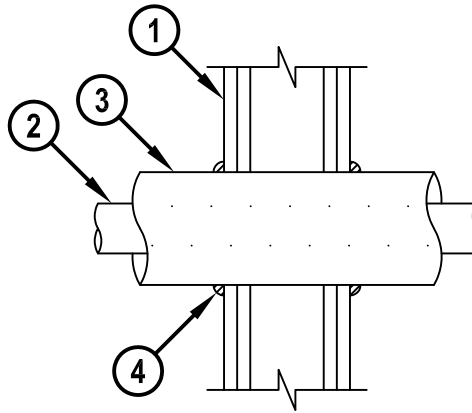
L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

WL5274c.011415

FRONT VIEW

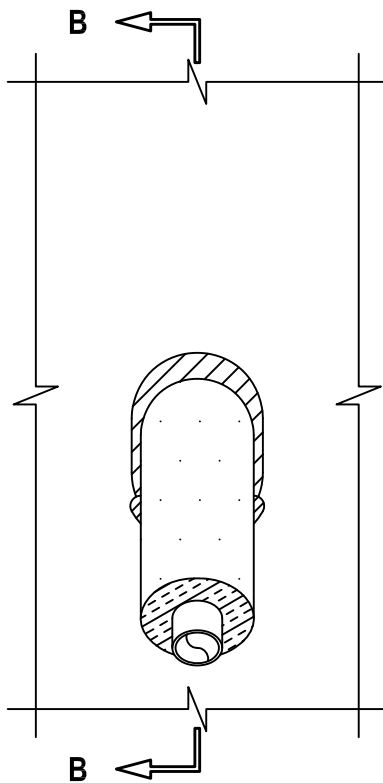


SECTION A-A

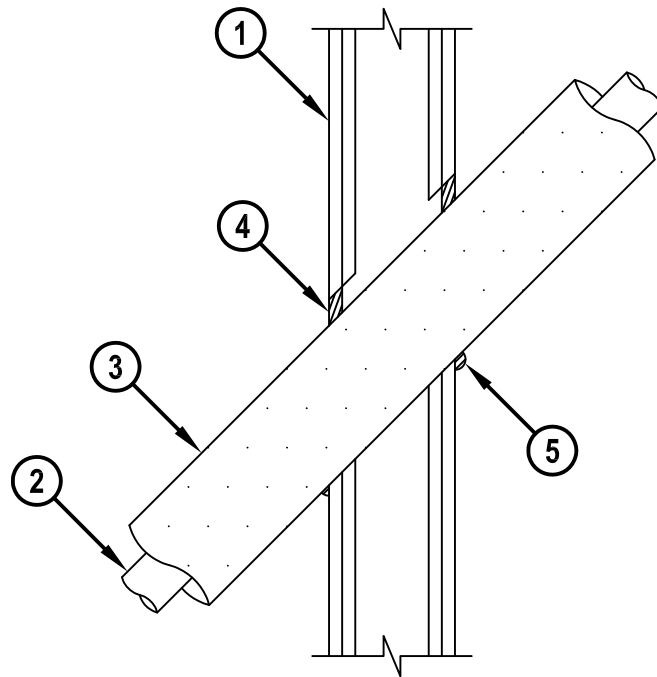


CONFIGURATION A

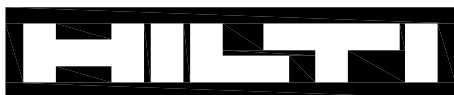
FRONT VIEW



SECTION B-B



CONFIGURATION B



**Hilti Firestop Systems**

HILTI, Inc.  
Tulsa, Oklahoma USA (800) 879-8000

Sheet 1 of 2

Scale 7/64" = 1"

Date Jan. 14, 2015

Drawing No.

**WL  
5274c**

*Saving Lives through Innovation and Education*

**INSULATED PIPE THROUGH GYPSUM WALL ASSEMBLY**

F-RATING = 1-HR. OR 2-HR.  
 T-RATING = 0-HR., 1-1/2-HR., OR 1-3/4-HR.  
 L-RATING AT AMBIENT = 4 CFM / SQ FT  
 L-RATING AT 400°F = LESS THAN 1 CFM / SQ FT

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1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400, V400, OR W400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN) TO INCLUDE THE FOLLOWING CONSTRUCTION FEATURES :
  - A. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER (SPACED MAXIMUM 16" OC). STEEL STUDS TO BE MINIMUM 2-1/2" WIDE (SPACED MAXIMUM 24" OC).
  - B. NOMINAL 5/8" THICK GYPSUM WALLBOARD. TYPE, NUMBER OF LAYERS, AND SHEET ORIENTATION AS SPECIFIED IN THE INDIVIDUAL UL DESIGN.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (PIPE MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45° FROM PERPENDICULAR) :
  - A. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCH 10 OR HEAVIER).
  - B. MAXIMUM 2" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
  - C. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE OR TUBING.
3. MINIMUM 1" TO MAXIMUM 1-1/2" THICK GLASS-FIBER (3.5 PCF DENSITY) PIPE INSULATION OR NOMINAL 1" OR 1-1/2" THICK CALCIUM SILICATE PIPE INSULATION.

**CONFIGURATION A**

4. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT PIPE INSULATION/GYPSUM INTERFACE.

**CONFIGURATION B**

4. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT.
5. MINIMUM 1/2" BEAD HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AT PIPE INSULATION/GYPSUM INTERFACE.

**NOTES :** 1. DIAMETER OF OPENING OF OPENING = 6".  
 2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 7/8".  
 3. WHEN PIPE IS INSTALLED PERPENDICULAR TO WALL, INSULATION MAY HAVE CONTINUOUS POINT OF CONTACT.  
 4. WHEN CALCIUM SILICATE PIPE INSULATION IS USED, SECURE INSULATION TO PIPE WITH STAINLESS STEEL BANDS OR MINIMUM 8 AWG STAINLESS STEEL WIRE AT MAX. 12" O.C.



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Scale	-
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