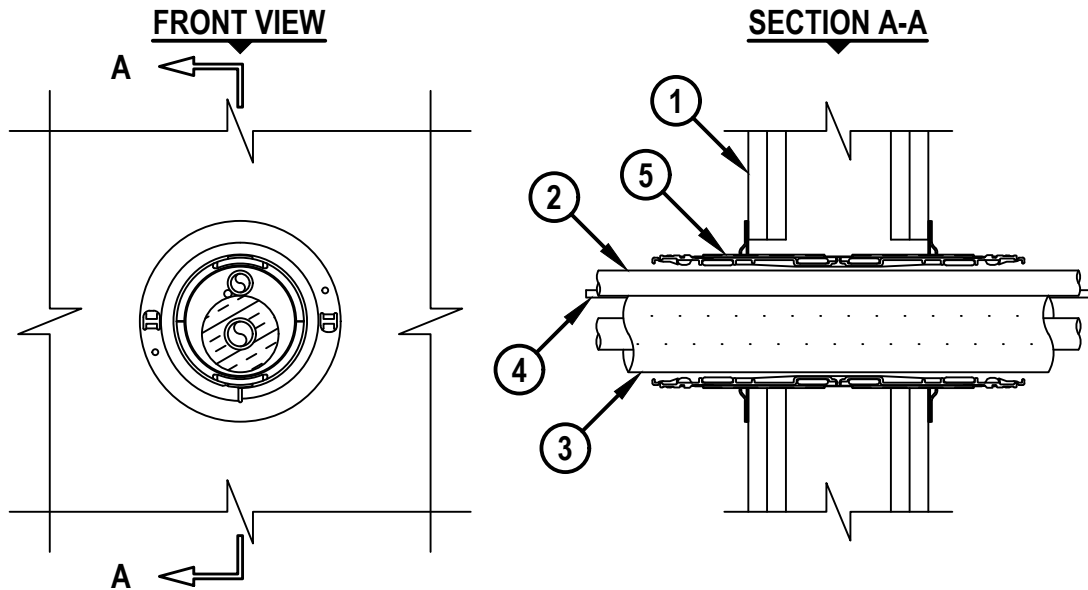


MULTIPLE PENETRATING ITEMS THROUGH GYPSUM WALL ASSEMBLY

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



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1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300, U400 OR V400 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 3-1/2" 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 ITEMS TO BE ONE OF THE FOLLOWING (MAX. QTY. = 2) (ONLY ONE TO BE LARGER THAN 3/4" DIAMETER) :
 - A. MAXIMUM 1" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 5 OR HEAVIER).
 - B. MAXIMUM 1" NOMINAL DIAMETER CAST OR DUCTILE IRON PIPE.
 - C. MAXIMUM 1" NOMINAL DIAMETER COPPER PIPE OR TUBING.
3. MAXIMUM 3/4" THICK AB/PVC PIPE INSULATION INSTALLED ON ONE METALLIC PIPE.
4. MAXIMUM 4 PAIR NO. 18 AWG THERMOSTAT CABLE WITH PVC JACKET.
5. HILTI CP 653 (BA) SPEED SLEEVE [2" OR 4"] OR HILTI CFS-SL GA L SPEED SLEEVE [4"] SLID INTO AND CENTERED WITHIN WALL. DEVICE FLANGES SPUN CLOCKWISE ONTO DEVICE THREADS OVER SMOKE GASKET, BUTTING TIGHTLY TO BOTH SIDES OF WALL.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 2-1/2" (FOR 2" DEVICE) OR 4-1/2" (FOR 4" DEVICE).
 2. HILTI CFS-SL GA L SPEED SLEEVE SHALL ONLY BE USED IN WALLS 8" THICK OR GREATER.
 3. ANNULAR SPACE BETWEEN DEVICE AND PERIPHERY OF OPENING = MINIMUM 0".
 4. ANNULAR SPACE BETWEEN PENETRATING ITEMS = 0".
 5. [OPTIONAL] AS AN ALTERNATE TO SMOKE GASKET, MINIMUM 1/2" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT OR HILTI CP 606 FLEXIBLE FIRESTOP SEALANT FLUSH WITH BOTH SURFACES OF WALL WITH AN ADDITIONAL 1/4" BEAD APPLIED AROUND PERIPHERY OF DEVICE PRIOR TO SECURING DEVICE FLANGES.



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Sheet	1 of 1
Scale	5/32" = 1"
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Drawing No.
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