## **cUL SYSTEM NO. W-L-2019**

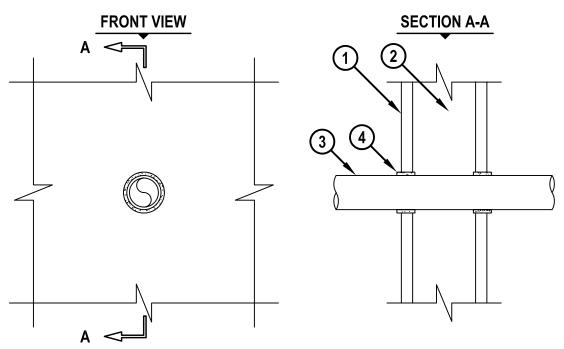
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## PLASTIC PIPE THROUGH 1-HR. GYPSUM WALL ASSEMBLY

F AND FH-RATING = 1-HR.

FT AND FTH-RATING = 3/4 AND 1-HR.

NOTE: TESTED WITH A 50 Pa PRESSURE DIFFERENTIAL



- 1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300 OR U400 SERIES) (1-HR. FIRE-RATING).
- 2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 3-1/2" WIDE.
- 3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING (ALSO SEE NOTE NO. 3 BELOW):
  - A. MAXIMUM 1-1/2" NOMINAL DIAMETER PVC PLASTIC PIPE (CELLULAR OR SOLID CORE).
  - **B. MAXIMUM 1" NOMINAL DIAMETER PEX TUBING.**
- 4. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING ONE TIME, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE. WRAP STRIP TO BE SLID INTO ANNULAR SPACE, SUCH THAT 1/4" OF THE WRAP STRIP PROTRUDES FROM THE WALL SURFACE. WRAP STRIPS REQUIRED ON BOTH SIDES OF THE WALL (SEE NOTE NO. 5 BELOW).
  - NOTES: 1. MAXIMUM DIAMETER OF OPENING = 2-1/4".
    - 2. ANNULAR SPACE = MINIMUM 3/16", MAXIMUM 5/16".
    - 3. CLOSED OR VENTED PIPING SYSTEM (PVC = SCHEDULE 40; PEX = SDR 9).
    - 4. WHEN PVC PLASTIC PIPE IS USED, FT AND FTH-RATINGS = 3/4-HR. WHEN PEX TUBING IS USED, FT AND FTH-RATINGS = 1-HR.
    - 5. AS AN ALTERNATE TO HILTI CP 648E WRAP STRIPS, ON NOMINAL 1-1/2" DIAMETER PIPES ONLY, HILTI CP 648S/1.5" WRAP STRIP MAY BE USED. SINGLE LAYER OF HILTI CP 648S TO BE WRAPPED ARROUND THE OUTER CIRCUMFERENCE OF THE PIPE AND HELD IN PLACE WITH INTEGRATED TAPE. SLIDE SINGLE WRAP INTO ANNULAR SPACE, SUCH THAT 1/4" OF THE WRAP STRIP PROTRUDES FROM BOTH SIDES OF THE WALL.



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Sheet	1 of 1
Scale	3/16" = 1"
Date	MAY 19, 2005

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